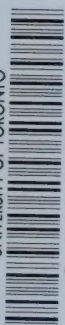


FACULTY OF DENTISTRY LIBRARY
UNIVERSITY OF TORONTO



3 1761 03923359 8



Digitized by the Internet Archive
in 2025 with funding from
University of Toronto

<https://archive.org/details/31761039233598>

The Canadian Dental Hygienists Association

PROBE

JOURNAL

de l'Association canadienne des hygiénistes dentaires

January/February 1998 vol. 32 no. 1

Challenges and Opportunities for the Millennium

Oral Health: Mozambique's Response to the Challenge

Osteoporosis and Alveolar Bone Loss





The new standard of comfort.

Introducing the revolutionary Cavatron® SPS™ Ultrasonic Scaler.

SPS Patient comfort and clinical efficiency are now a perfect fit, thanks to Cavatron's breakthrough Sustained Performance System™. Working like the cruise control in your car, SPS technology *maintains scaling effectiveness* even at ultra-low power settings, providing:

Patient Comfort - Because SPS technology maintains power, you can set the control lower.

Clinical Efficiency - Your scaling effectiveness is maintained, even at a decreased power setting.

Extended Lower Power Range - SPS technology

offers The Blue Zone™, an extended lower range for subgingival scaling.

Temporary Power Boost - Just press the second position on the foot control.

SPS technology is the most significant improvement in scaling in a decade. And it's available only in the Cavatron SPS Ultrasonic Scaler and the Cavatron™ JET System.

So when comfort's on the line, get on the line—to your local DENTSPLY Canada distributor or call 1-800-263-1437 for more information.

Cavatron

Preventive Care Division

Setting The Standard

DENTSPLY
CANADA

© 1997 DENTSPLY International All Rights Reserved.

The Truth is Out There...

By Judy Clarke, Dip.D.H.

When I first joined the CDHA Board as a director, I admit that I was quite unaware of the complexity of issues facing dental hygiene on a national level. I knew of CDHA's mission statement and had some idea of their projects, but the details were unknown. My enlightenment was fast and furious and the more I learned, the more it motivated me to explore further. One area that I felt I needed to understand better was dental hygiene research and how it influences our daily practices. My investigations did more than heighten my awareness, they imparted on me the tremendous importance of research to the dental hygiene profession.

I think everyone would agree that research is a pretty broad topic with numerous applications, but at its most fundamental level, it is the "systematic investigation of some phenomenon" (Funk and Wagnall) or, in other words, a search for the prevailing truth. It has also been identified as an essential characteristic that helps to distinguish a true profession from an occupation.

By defining and refining our body of knowledge, research has played a key role in the growth of the dental hygiene profession. The art and science of dental hygiene is founded on a dynamic information base that must be constantly revisited and updated — research provides the mechanism by which this process can occur. Because dental hygiene is so closely related to dentistry, it is important that we continually work to develop an ever expanding body of knowledge distinct to dental hygiene and applicable to our needs. There are an increasing number of dental hygienists directly participating in research, either primarily through their work or as a function of their baccalaureate, master and doctorate level studies. CDHA has long supported research and as part of our goal "to promote quality dental hygiene research," we fund the CDHA Dental Hygiene Research Grant and the CDHA Graduate Student Research Award which provide financial assistance to colleagues to help offset costs associated with their projects. We are proud to be able to offer these grants to our members since collectively, their research is broadening our knowledge base and strengthening our profession.

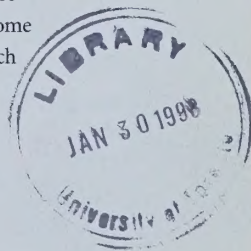
So, how does research directly influence the average dental hygiene practitioner? Probably more than you think. In our *Dental Hygiene: Definition and Scope* document, CDHA defined the professional role of a dental hygienist as encompassing all of the five primary responsibilities of clinical therapy, health promotion, education, administration and research. Research is one aspect that we should highly value as most of our dental hygiene practice focuses on evidence-based decision making. It is so very important that we continually utilize our critical thinking skills to select appropriate interventions, based on the most current information, when developing treatment plans for clients. We are accountable for our treatment and so our decisions must be based on up-to-date, reliable evidence gathered from research.

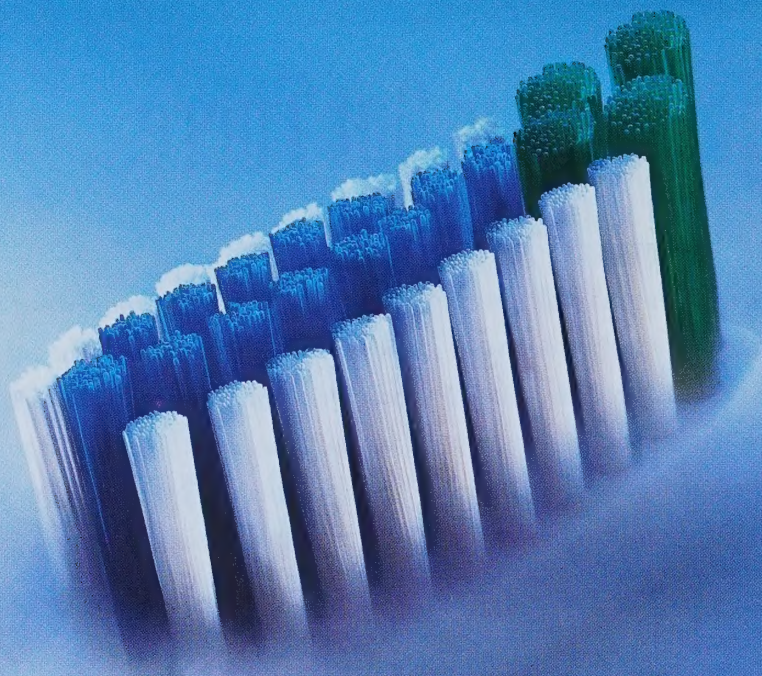
This necessity for an awareness of current research goes hand in hand with the personal and professional responsibility of each dental hygienist to be committed to life-long learning and continued competency. In order to provide the most effective care for our clients, we need to be conscious of not only the new technologies, theories and protocols available, but also those which have been modified (i.e. new protocols for fluorides and selective prophylaxes) or discontinued. Results from research can be accessed a number of ways including attendance at courses/conferences, reading referred scientific journals (like *Probe*), and conversing with colleagues. Computers are also creating endless opportunities for information exchange and distance education via the Internet. The drive for knowledge shouldn't stop at just dental hygiene either, as we need to be informed of new advances within the whole realm of dentistry and their implications for dental hygiene and the client.

Michele Darby stated that "research is the hallmark of a true profession, for it is through research that advancements and improvements in a profession's role to the public are achieved." Dental hygiene research serves to validate dental hygiene practice and as such, is an indispensable resource for practitioners as they pursue new scientific and clinical knowledge and skills. Life-long learning is critical because the more informed we are, the more valued and respected we become in our various practice settings. The truth is out there — research helps us find it.



Judy Clarke is a 1987 graduate of the University of Alberta Dental Hygiene Program. She has worked full-time in private practice over the past ten years and continues to do so in Edmonton, Alberta.





When It Comes To Reaching Plaque Below The Gum Line,
One NEW Toothbrush Rises To The Occasion.

BUTLER G-U-M® Super Tip™

Butler is about to raise your expectations about plaque removal with a new toothbrush called Butler G-U-M® Super Tip.™ Its unique raised center bristles are specially designed to attack bacterial plaque in the hardest-to-reach place of all — below the gum line. A green tapered tip cleans posteriors and interproximally. And the white outer bristles clean the tooth surface and massage the gums. Butler G-U-M® Super Tip™ comes in regular and compact head sizes, in your choice of soft or ultra-soft. So help your patients fight plaque at a whole new level, with Butler G-U-M® Super Tip.™ The toothbrush that's clearly above the rest because it's specifically designed to go below the rest.



BUTLER 
Experts In Oral Care

For more information, please call 1.800.265.8353
Visit our website at: www.jbutler.com

Share the strength of the world's largest mutual fund company



Fidelity Investments®

The World's Largest Mutual Fund Company

Over 12 million investors like you share the strength of Fidelity Investments. In fact, we've been helping investors achieve their goals for over 50 years. Today, as the world's largest mutual fund company with more than \$625 billion* in assets, we have the resources you need to help you build your future, step by step. And the global expertise to help you meet your goals, with confidence.

** As of November 30, 1997. Read the important information contained in a mutual fund's prospectus before investing.*

Please send me more information on
Fidelity Investments today.

NAME:

ADDRESS:

CITY:

PROVINCE:

POSTAL CODE:

TELEPHONE (BUS.):

TELEPHONE (RES.):

I AM A CLIENT OF MIDLAND WALWYN:

YES ☐

NO ☐

MY ADVISOR IS:

CDHA 01/98

NTL 01/98

MAIL  POSTE

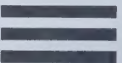
Canada Post Corporation
Société canadienne des postes

Postage paid

Port payé

if mailed in Canada si posté au Canada
Business Reply Réponse d'affaires

0103364699 01



0103364699-M5J2W5-BR01

ATT: AFFINITY SERVICES
MIDLAND WALWYN
PO BOX 19009 STN BRM B
TORONTO ON M7Y 3M9

3 PRESIDENT'S MESSAGE

The Truth is Out There...
By Judy Clarke, Dip.D.H.

6 NEWS

SCIENTIFICS

- 11 Osteoporosis and Alveolar Bone Loss
Prepared by Linda Talbot, Dip.D.H., B.D.Sc.
Candidate and Bonnie J. Craig, Dip.D.H., M.Ed.
- 18 Management of the Patient With Mental Retardation: A Case Report
Prepared by Carla Loiacono, RDH, MS, Assistant Professor, Jesse Jenkins, DDS, Assistant Professor, and Patricia Regner Campbell, RDH, MS, Assistant Professor — Baylor College of Dentistry, The Texas A&M University System

15 PRACTICE PROFILE

Dental Hygienist Provides Mobile Dental Hygiene Services
Featuring Bruce Coyle, RDH

16 CDHA'S INSURANCE PLAN

CDHIP: Why Disability Insurance?

FEATURE ARTICLES

- 23 Oral Health: Mozambique's Response to the Challenge
By Argentina Monguambe and Marnie Forgay, Dip.D.H., B.Ed., M.A. LLD
- 27 Dental Hygiene: Challenges and Opportunities for the Millennium
By Patricia M. Johnson, RDH, Ph.D.

30 ABSTRACT

Critical Steps in Instrument Cleaning: Removing Debris After Sonication
Reviewed by Carol Barr Overholt, Dip.D.H., Contributing Editor

32 NEW PRODUCTS

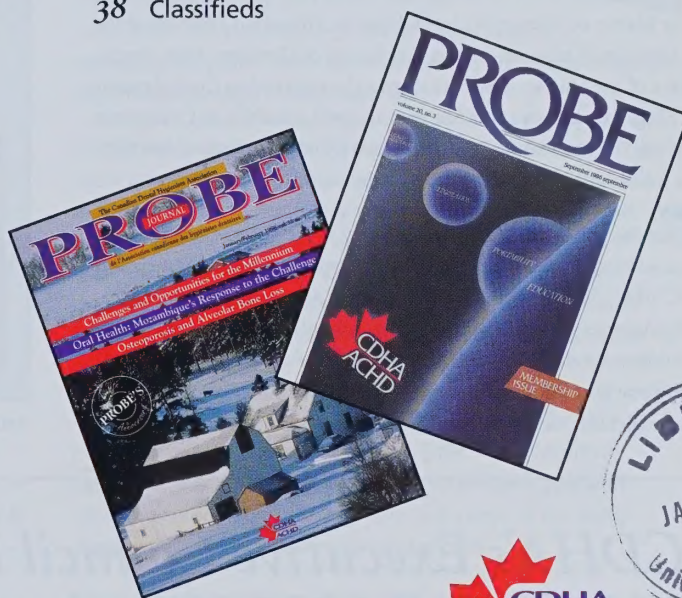
CONFERENCE INFORMATION

- 34 CDHA National Conference
1998 Preliminary Program

INFORMATION

- 31 Probing the Net
By Karen Wolfe, Dip.D.H.
- 37 Estate Planning: Maximizing Savings and Minimizing Taxes (Midland Walwyn)
- Advertisers' Index
- Probe Advertising Rates
- 38 Classifieds

5



DID YOU KNOW?

1998 marks the twelfth anniversary of CDHA's official publication, *Probe*. Prior to becoming *Probe* in 1986, the journal was called *the canadian dental hygienist*.

Cover Photo: New Glasgow, Prince Edward Island
(John Sylvester, photographer)

MANAGER, COMMUNICATIONS SERVICES: Angela J. Whelan, B.A.
EXECUTIVE DIRECTOR: C.M. Worobey, Dip.D.H.
EDITORIAL ADVISOR: K. Edwards, M.A.
STATISTICAL REVIEWER: R. Dunford, B.Sc., M.Sc.
CONTRIBUTORS
Carol Barr Overholt, Dip.D.H.
M. Goulding, Dip.D.H., B.Sc.
Leanne Carlson-Mann, Dip.D.T., Dip.D.H.
Karen Wolfe, Dip.D.H.

EDITORIAL BOARD
Laura MacDonald, Dip.D.H., B.Sc.D., M.Ed.
B. Fortune, Dip.D.H.
Jane Waites, Dip.D.H.
L. Guest, Dip.D.H., B.H.Ed.
R. Lunn, Dip.D.H.

DESIGN: Edels-Marcotte
Published six times a year by the Canadian Dental Hygienists Association, 96 Centrepoin Drive, Nepean, ON K2G 6B1
Tel (613) 224-5515

Canada Post Publications Mail Registration No. 5793
CANADIAN POSTMASTER: Notice of change of address and undeliverables should be sent to:
Canadian Dental Hygienists Association
96 Centrepoin Drive,
Nepean, ON K2G 6B1

Subscriptions \$69.55 (GST Included) in Canada, \$110.00 Cdn for US and \$115.00 Cdn elsewhere. Fifty cents per issue is allocated from membership fees for journal production. All statements are those of the authors and do not necessarily represent the CDHA, its Board, or its staff.

ADVERTISING AND SUBSCRIPTIONS:
Keith Health Care Communications
1382 Hurontario St.
Mississauga, ON L5G 3H4
(905) 278-6700

CDHA 1998
6176 CN ISSN 0 834-1494
GST Registration No. R106845233

CDHA CENTRAL OFFICE STAFF
Executive Director: Carol Matheson Worobey
Manager, Communications Services: Angela J. Whelan
Manager, Finance and Administration: Monique Belleau Rock
Manager, Member Services: Sandra Vanwart
Member Services Assistant: Sue Turcotte
Administrative Assistant: Shelly Rochon

All CDHA members are invited to call the CDHA's Member Line toll-free, with their questions/inquiries:
1-800-267-5235, Fax (613) 224-7283

We look forward to serving you.

The Canadian Dental Hygienists Association's Journal, *Probe*, is the official publication of the CDHA. The CDHA invites submissions of original research, discussion papers, and statements of opinions pertinent to the dental hygiene profession. All manuscripts are refereed anonymously. Contributions to *Probe* do not necessarily represent the views of the CDHA, nor can the CDHA guarantee the authenticity of the reported research. Copyright 1998. All materials subject to this copyright may be photocopied for the non-commercial purpose of scientific or educational advancement.

New Director, Salme Lavigne, Joins the School of Dental Hygiene at the University of Manitoba

Ms. Salme Lavigne has assumed the position of Director for the School of Dental Hygiene at the University of Manitoba last September 1997. Ms. Salme began her dental career after completing her Dental Hygiene Education at the University of Toronto, Faculty of Dentistry in 1967. Upon graduation, she practised dental hygiene for five years in a variety of settings including the Dental Department at the Toronto Western Hospital. Following a move to Thunder Bay, Ontario, Salme accepted a teaching position at Confederation College founding both the Dental Assisting and Dental Hygiene programs. She served as Director of both programs for 20 years. Upon completion of a B.A. in Biomedical Anthropology from Lakehead University, Ms. Salme was accepted into the Master of Science in Dental Hygiene Education Program at the University of Missouri-Kansas City, School of Dentistry. After completion of her Master of Science degree she returned to Confederation College for one more year. She then accepted a position as Chairperson of the Department of Dental Hygiene for Wichita State University, a position which she had held for the past five years.

Over the years, Ms. Salme has been very active in several professional associations including the Canadian Dental Hygienists Association (CDHA), the American Dental Hygienists Association (ADHA) and the American Association of Dental Schools (AADS) where she was recently elected to serve as Councillor for the Section on Dental Hygiene Education for a three year term. Additional appointments have included Accreditation Consultant for the Council on Dental

Accreditation, ADA; Delegate for ADHA; Advisory Committee Member for the Geriatric Oral Health Promotion Grant at UMKC; as well as Director for CDHA. In addition, Ms. Salme has several publications in a variety of journals including a book chapter in a new periodontal textbook which was scheduled for release in late 1997.

Salme is married and has three children ranging in age from 19–25. Her proudest moment has been to present her eldest daughter with her degree in Dental Hygiene from Wichita State University.



Salme E. Lavigne, RDH, BA, MS

CDHA's Executive Council Members Met for Fall 1997 Planning Session



Executive Council members gathered in Edmonton last October 17–19 to discuss and formulate their 1997 Annual Fall Planning Session. An environmental scan of the association and its future responsibilities emerged as the central theme of the meeting. The Executive Council also identified two key areas for work to be done; the need to develop a national communication strategy and revisiting board governance. The CDHA intends to address these issues during the 1998 calendar year. While in Edmonton, Executive Council, had the opportunity to meet the Executive Director of ADHA, Josephine Juchli and Brenda Walker, Registrar at ADHA's headquarters.

Left to right: Sue MacIntosh (CDHA's Past President), Brenda Walker (Registrar of ADHA), Darlene Thomas (Executive Council member), Judy Clarke (President of CDHA), Carol Matheson Worobey (Executive Director of CDHA), Donna Bowes (CDHA's President-elect), and Josephine Juchli (Executive Director of ADHA).

1997 National Dental Hygiene Week, October 20–26, 1997

Le Collège Boréal s'adresse au public

La Semaine nationale de l'hygiène dentaire fut un grand succès à Sudbury, Ontario. Les apprenantes et les apprenants du Collège Boréal ont présenté des tables d'exposition à la communauté afin de sensibiliser les gens au rôle de l'hygiéniste dentaire vis-à-vis l'entretien d'une hygiène buccale saine. Les divers aspects traités attirèrent l'attention des gens qui ont bien apprécié la distribution des feuillets de renseignements provenant de l'Association canadienne des hygiénistes dentaires (ACHD). Les activités bilingues ont pour but de susciter l'intérêt public de la communauté francophone et anglophone lors de la Semaine nationale de l'hygiène dentaire. La participation du collège est maintenant un événement annuel pour les apprenantes et les apprenants au sein des programmes dentaires du Collège Boréal.

Le campus de Sudbury du Collège Boréal est maintenant situé dans son nouvel immeuble tout à fait à la pointe de la technologie moderne. Pour des renseignements sur les programmes dentaires disponibles au collège, communiquez directement au 1-800-361-6673.

Collège Boréal Students Talk to the Public

National Dental Hygiene Week was a grand success in Sudbury, Ontario. The dental hygiene students from Collège Boréal visited several malls throughout the region promoting the key role of dental hygienists' in the maintenance of oral health and other various aspects of oral hygiene care. The table displays and the Canadian Dental Hygienists Association's (CDHA) fact sheets for different age groups were very well received by the public. Bilingual public awareness activities during National Dental Hygiene Week, geared to the French and English speaking community, have become an annual event in Collège Boréal's dental programs.

The Collège Boréal Sudbury Campus is now housed in its new state-of-the-art facility. For information on the college dental programs, please call directly 1-800-361-6673.



Students Cheryl Beaudry and Selene Courjaud from Collège Boréal take part in the table clinics during National Dental Hygiene Week.

Les étudiantes Cheryl Beaudry et Selene Courjaud du Collège Boréal participent aux tables d'exposition durant la Semaine nationale de l'hygiène dentaire.

ODHA Ambassadors Take Message to the Public

ODHA member dental hygienists have identified promoting the profession as a priority for their Association.

While raising public awareness is an ongoing activity for the ODHA, the Association believes that one of the best ways to get the message to the public about the roles and responsibilities of dental hygienists is through its own members.

During the National Dental Hygiene Week campaign, the ODHA made a more concerted effort to provide members with the tools so they could be more effective ambassadors for the profession. The Association provided a "shopping list" featuring several promotional items including posters, pens, books and pamphlets that members could order and give out at various events such as mall displays and visits to schools and health care institutions in their communities.

Highlighting the shopping list was a full-color 11" x 17" promotional poster produced by the ODHA which members can use all year round in their community outreach programs. All members and non-members were sent a copy of the poster along with membership recruitment materials.

The ODHA also sent several thousand posters to all media, secondary schools, elementary schools and libraries throughout Ontario.

As part of its government relations program, the ODHA included the poster in a mailing to Members of Provincial Parliament (MPPs). As a result, nine MPPs sent written responses thanking the ODHA for the information and inviting future discussion concerning dental hygiene issues.

The ODHA media coverage during National Dental Hygiene Week was overwhelmingly successful. According to the media monitoring service, more than 34 media items were reported. Of these, 16 were directly related to the press kit that the ODHA sent to newspaper editors and radio station managers.

Many of the press clippings included photographs and news coverage of community activities sponsored by dental hygiene societies and colleges.

Reports are still coming in from various societies.



NDHA Honorary Membership Award

Dr. Jane Pickersgill, Assistant Executive Director and Medical Officer of Health Community Health Central, has been awarded the first Newfoundland Dental Hygienists Association's Honorary Membership Award. This award was presented to Dr. Pickersgill to acknowledge her contribution to the art and science of dental hygiene in Newfoundland.

Dr. Pickersgill has championed dental health promotion in community health. She has always provided a position on her staff for a dental hygienist and under her direction dental hygienists developed a school fluoride rinse pilot program and the intergration of dental health promotion into the public health programs. She also directed a successful campaign to reinstate fluoride into Gander's water supply.

The award was presented by Pam Vokey, Treasurer of NDHA at the annual general meeting in Gander last May 1997.



Pam Vokey, Treasurer of NDHA, presents Dr. Jane Pickersgill with the Honorary Membership Award.

Revisions to the CDHA's Code of Ethics—June 1997

*Changes are in bold text

The revisions for the first paragraph under Preamble, Pg. 1: "The practice of dental hygiene can generally be defined as helping relationship in which the dental hygienist assists the client, and society in general, in achieving and maintaining optimal oral health. **The ultimate goal of dental hygiene clinicians, educators, administrators, and researchers is to advance dental hygiene practice so that clients and society in general continue to receive quality dental hygiene care.** Dental hygiene has an identified..."

Page 4 Section 1: Responsibilities to the Client

The dental hygienist has a commitment to the welfare...education, administration, community health **and industry.**

Page 7 Principle 4

The dental hygienist is obligated to provide competent care as currently described **in the document Dental Hygiene: Definition and Scope.**

Page 8

4(c)... provision of care consistent with the practice standards defined in *Dental Hygiene: Definition and Scope*, and...Prospective employers should be informed of **these practice standards and the Code...**

Page 9 5b becomes 5c and a new 5b reads as:

"The dental hygienist shall not recommend unnecessary procedures, or bill a client, or cause a client to be billed, for professional services not rendered."

Page 13 References

Add "Dental Hygiene: Definition and Scope," CDHA, August 1995 delete "Clinical Practice Standards for Dental Hygienists in Canada" ...1988.

Changements au Code d'éthique de l'ACHD – Juin 1997

* Les changements sont en caractères gras

Les changements pour le premier paragraphe sous le préambule, page 1 : "en terme général, on peut définir l'hygiène dentaire comme un rapport de collaboration dans lequel l'hygiéniste dentaire oeuvre de concert avec le client et avec la société en général, pour améliorer et atteindre une santé buccale optimale. **Le rôle primordial de l'hygiéniste dentaire en matière de la thérapie clinique, de l'éducation, de l'administration et de la recherche est de promouvoir la profession de l'hygiène dentaire pour que le client et la société en général puissent continuer de recevoir des soins d'hygiène bucco-dentaires de haute qualité.** L'hygiène dentaire a été défini..."

Page 4 Section 1 : Responsabilités envers le client

L'hygiéniste dentaire a une responsabilité envers le bien-être..., l'éducation, l'administration, la santé communautaire et **l'industrie.**

Page 7 Norme 4

L'hygiéniste dentaire doit offrir une compétence professionnelle en matière de soins telle que décrite **dans le document intitulé L'hygiène dentaire: définition et champ d'application.**

Page 8

4 (c) ... l'exécution des soins selon les normes de pratique professionnelle tels que définis dans le document intitulé *L'hygiène dentaire: définition et champ d'application*, et... Les employeurs éventuels devraient être renseignés sur **ces critères et normes** ainsi que le Code...

Page 9 5b devient 5c et le nouvel item 5b se lira comme suit :

"L'hygiéniste dentaire ne doit pas recommander des procédures ou traitement jugés non-nécessaires, ou facturer un client, ou provoquer la facturation à un client, pour des soins professionnels non-rendus".

Page 13 Références

Ajouter "*L'hygiène dentaire : définition et champ d'application*", l'ACHD, Août 1995 et supprimer "Les normes d'exercice clinique à l'usage des hygiénistes dentaires au Canada" ...1988.



Funding for Dental Hygiene Research

**CDHA ENDOWMENT FUND/
DENTISTRY CANADA FUND GRANTS**



Dentistry Canada Fund
Fonds dentaire canadien

Individuals who are Canadian citizens or possess landed immigrant status, whose vocation is primarily concerned with any aspect of dental hygiene, are eligible to apply for grants through the CDHA Endowment Fund. Non-profit organizations, any facility or school whose primary activity is related to any aspect of dental hygiene are also eligible to apply.

Applications must be directed towards upcoming projects since retroactive grants will not be considered. Furthermore, grants are awarded for the specific programs or projects described in the application and any change in the use will necessitate a repayment.

Grant recipients are obliged to give credit to CDHA and the Dentistry Canada Fund (DCF) in any promotional matter relating to the

projects or programs and CDHA/DCF logos can be made available to successful applicants on request.

Applications may be submitted at any time of the year. The DCF Board of Directors and the CDHA Endowment Fund Committee meet twice a year, in mid-fall and in mid-spring, to review applications. No application can be approved without DCF Board/CDHA Committee review. The number and scope of awards is dependent on the funds available.

To request an application contact CDHA at 1-800-267-5235. All applicants must use the official application form. Incomplete applications will not be reviewed. Faxed applications will not be accepted. All applicants will be notified of the date their proposal will be reviewed by the DCF Board/CDHA Committee.

9

DCF Funding Available to Dental Hygienists

In addition to the Canadian Dental Hygienists Association's (CDHA) Endowment Fund, the Dentistry Canada Fund (DCF) has other grant programs which dental hygienists may want to investigate. The DCF/ Wrigley Student Research Award Program is particularly interested in funding dental hygiene community education research projects. In 1998, three awards of approximately \$3,000 are being offered by Wrigley Canada Inc.

The Warner-Lambert Fellowships for short-term study projects are also available to dental hygienists working in community health settings

or as dental hygiene educators. The maximum value of these awards is \$2,500.

Deadline for applications for both of these programs is March 1st, 1998.

For more information and/or an application, please contact Richard Monro, Executive Director of the Dentistry Canada Fund at (613) 236-4763 or e-mail dcf-ottawa@sympatico.ca

Joanne Clovis Receives 1997 CDHA Research Grant

The 1997 CDHA Dental Hygiene Research Grant was awarded to Joanne Clovis, former director of Dalhousie University's School of Dental Hygiene. Ms. Clovis is currently enrolled full-time in the interdisciplinary Ph.D. Program at Dalhousie University.



CDHA Student Hygienist Scholarship Program

What is the Student Scholarship Program?

The Student Scholarship is awarded to undergraduate dental hygiene students for their contributions to the advancement of dental hygiene.

The program consists of:

- One \$1,000 scholarship to be used toward dental hygiene education expenses.
- Air travel expenses to and from the CDHA Annual Professional Conference and three nights accommodation at the conference hotel. (Conference registration will be paid by the CDHA).

Who is Eligible?

- Undergraduate dental hygiene students.
- Applicants must be CDHA student members.

How to Apply

- Applicants must submit, in writing, a description of their involvement with the Canadian Dental Hygienists Association.
- Applications must be accompanied by the endorsement of two CDHA members.

Criteria for Judging

- Demonstrated involvement in the Canadian Dental Hygienists Association, e.g.
 - Submitted material for publication in the *CDHA Journal*.
- Demonstrated keen interest in national dental hygiene issues.
- Demonstrated qualities of leadership.
- Participation in National Dental Hygiene Campaign.
- Participation in national/international conferences such as table clinic presentations, poster sessions, presentations, etc.
- Applicants must describe how they have promoted oral health and the profession of dental hygiene in the community.

Note: The successful candidate must agree to submit for publication an article outlining his/her accomplishments and involvement in CDHA.

Application Deadline

Applications are to be submitted to CDHA's Central Office by April 1, 1998.

For further information and/or an application form for the Student Hygienist Scholarship Program, the CDHA Dental Hygiene Research Grant, or the CDHA Graduate Student Research Award, contact:

Canadian Dental Hygienists Association
 Centrepointe Chambers, 96 Centrepointe Dr.
 Nepean (Ottawa), ON K2G 6B1
 Telephone: (613) 224-5515 Facsimile: (613) 224-7283

CALL FOR APPLICANTS

CDHA Dental Hygiene Research Grant

OBJECTIVE: To support Canadian dental hygienists engaged in research that enhances the dental hygiene profession's ability to promote health and well-being.

GENERAL DESCRIPTION: A grant of \$5,000 will be awarded annually to a Canadian dental hygienist involved in qualitative or quantitative research as a principal investigator or co-investigator. Preference will be given to research projects relevant to the discipline of dental hygiene and the goals of the CDHA.

ELIGIBILITY: Applicants for this grant must be academically qualified Canadian dental hygienists who are active or life CDHA members in good standing. Evidence of academic credentials at the Masters and/or PhD level is required.

APPLICATIONS: The deadline is **March 31, 1998**. Applications must be submitted on forms available from CDHA's Central Office.

CONDITION OF AWARD: On completion of the research project, recipients of this grant agree to provide a written report for the *Probe* or reprints of journal articles to CDHA's Central Office.

See page 9 for details about the 1997 CDHA Dental Hygiene Research Grant recipient.

CALL FOR APPLICANTS

CDHA Graduate Student Research Award

OBJECTIVE: To promote the research training of Canadian dental hygienists in research oriented Masters or Doctoral programs.

GENERAL DESCRIPTION: An award of \$5,000 will be given annually to a highly qualified candidate enrolled as a graduate student in a Masters or Doctoral program.

ELIGIBILITY: Applicants for this award must be Canadian Dental Hygienists who are active, associate, student or life CDHA members, in good standing, who may be studying full or part-time. Applicants must present evidence of having been accepted by a recognized academic institution.

APPLICATIONS: The deadline is **April 1, 1998**. Applications must be submitted on forms available from CDHA's Central Office.

DURATION: This award is made for one academic year for full-time students or the equivalent for part-time students. The award may be renewable for one additional academic year or its equivalent on receipt of a satisfactory progress report. The progress report must detail work to date and include any pre-prints or reprints arising from the work. Any request for renewal of this award should be accompanied by a letter from the research supervisor and one other referee.

CONDITION OF SUPPORT: On completion of studies, recipients of this award agree to provide a bound copy of the thesis or project to CDHA's Central Office.

Osteoporosis and Alveolar Bone Loss

Introduction

A primary focus of dental hygiene is the prevention and treatment of periodontal diseases and the maintenance of oral health. As the dental hygiene profession continues to take an increasingly comprehensive approach towards dental hygiene care, it is necessary to be knowledgeable about the oral implications of systemic diseases. One such disease is osteoporosis considered a major health problem¹ and one that may affect alveolar bone.¹⁻³ Osteoporosis occurs in both men and women but a greater percentage of women are afflicted with this often debilitating condition. Not only should osteoporosis be of interest to dental hygienists as health professionals, it may be of personal interest since most dental hygienists are female.

This paper reviews current literature on the possible relationship between osteoporosis and oral bone loss. Research in this area has been ongoing for approximately four decades and encompasses hundreds of observations on animals and humans. Human studies include both edentulous and dentate patients. Billions of dollars are spent annually on the treatment and care of patients diagnosed with osteoporosis.^{4,5} Although osteoporosis generally affects the elderly, preventive actions must start much earlier.⁶ As health care providers who work with people of all ages, dental hygienists have a responsibility to recognize local and systemic factors that may be related to osteoporosis when reviewing health histories and assessing oral health.

Description of Disease

Osteoporosis is a systemic condition associated with loss of bone density, thinning of bone tissue, and increased risk of fractured bones and loss of height.⁷ The disease affects both cortical and trabecular bone. A loss of bone density occurs when more calcium is resorbed from the bone than is replaced. In health, bone apposition and resorption are equal and therefore, bone density remains adequate.⁸ This metabolic disease occurs more frequently in women, usually postmenopausal women, but it can affect the elderly of both sexes.^{1,2,8} The number of seniors in our population is increasing and with that comes the complications of illness and disease affecting this age group in particular.

In the Western world, more than one-third of women over age 65 suffer from symptoms of osteoporotic fractures.² Postmenopausal or Type I osteoporosis is believed to be caused by factors related to, or exacerbated by, menopause and therefore affects only women. Type I osteoporosis affects women 10–15 years after menopause.⁸ In Type II, aging-associated osteoporosis, men and women are affected at a similar rate. Conditions which exacerbate bone loss include diabetes mellitus and estrogen depletion. The most common causes are early hysterectomies in women, hypogonadism in men, or a glucocorticoid state associated with thyroid therapy in either sex.

There may be a long period of asymptomatic bone loss which ultimately leads to fracture.⁵ Fractures occur at skeletal sites that have large

amounts of trabecular bone, especially vertebrae and wrists. Trabecular bone is lost first at an annual rate of 0.7% in men and 1.2% in premenopausal women.⁹ Osteoporosis is also responsible for hip fractures which usually occur in the elderly when there is greater loss of cortical bone.^{8,9} Seventeen percent of patients with hip fractures will die within six months from a related illness such as pneumonia, making conditions related to osteoporosis among the twelve leading causes of death in caucasian adults.¹⁰

The disease is usually manifested clinically by arm and vertebral fractures. In 10% of women and 40% of men presenting with spontaneous fractures of the vertebrae, osteoporosis can often be identified.^{8,10}

Detection and Diagnosis

Osteoporosis is often not detected early. It does not affect the skeleton uniformly. The disease is difficult to define and bone mass measurements are hard to interpret, therefore the disease is usually diagnosed in the presence of clinical manifestations fractures.¹¹

The diagnosis of osteoporosis can be by various tests. Early assessment can be performed by orthopedic surgeons, gynecologists and endocrinologists.¹ A test commonly used to measure bone density is dual energy x-ray absorptiometry (DEXA). This test measures bone density at the hip, spine and wrist. Dual-photon absorptiometry (another type

of diagnostic test) and dual energy x-ray absorptiometry are both simple and painless. Other methods include single-photon absorptiometry and quantitative computed tomography (QCT).¹⁴ Although the cost of equipment is higher, some specialists are using the dual-photon machines because the early stages of vertebral bone loss can be diagnosed more accurately.

Klemetti and co-workers¹⁴ researched whether or not patients at risk for osteoporosis could be identified using pantomographs. Kilovoltage, exposure and varying shadows of soft tissues may affect the images. There is difficulty in standardizing the position of the head which can also lead to projection errors on the film. The study confirmed that panoramic x-ray images yield little information for diagnosing osteoporosis risk. Southard and Southard⁹ studied films taken on older and younger women. They compared standard periapical radiographs of maxillary alveolar bone and found significantly less bone mass in older women (mean age 74.4 years) than in young women (mean age 24.4 years). Four features of bone were measured and the magnitude of all four features had diminished with age.

In dentistry, studies vary but findings indicate that routine periapical or panoramic radiographs are not useful in diagnosing bone loss until 25% to 40% of calcium or bone density is lost.^{8, 12} The underestimation of marginal bone loss may range from 13% to 32% in panoramic films. Information on labial and lingual bone levels is lacking in dental radiographic measurements.¹³ von Wowern suggests "the best method for the evaluation of bone mass changes in the mandible is to analyze the mandible itself" because examination of parts of the skeleton permits only limited conclusions compared with examination of the mandible.²

Solar¹⁵ examined the left half of 25 edentulous mandibles (15 females, 10 males) from cadavers. The mean age was 79.8 years. None had been diagnosed with osteoporosis-related diseases. The results showed that there was a significant difference between the sexes. The average bone mineral content (BMC) of the males clearly exceeded that of the females. There was a positive correlation between BMC and the age of the male mandibles. A slight BMC increase was detected with advancing age. In the female mandibles, there was a slight but not significant BMC decrease associated with age. This study suggested that osteoporosis may be regarded as a co-factor of residual ridge resorption in the mandibles of females.¹⁵

Osteoporosis and Periodontal Disease

Osteoporosis is considered a "silent disease" as is adult periodontitis because it can also reach an advanced stage without symptoms.³ Increasing age is a risk factor associated with periodontal disease and osteoporosis.^{1, 3} Several studies have been conducted to determine which factors are involved in bone resorption, bone formation and to determine if the risk of developing periodontal disease is higher when osteoporosis is present.

It is known that periodontal disease, specifically periodontitis, destroys the bone around teeth and in advanced cases bone loss is severe. Contributing factors such as smoking, iatrogenic dentistry, and malocclusion play roles in periodontal disease. Osteoporosis causes a decrease in bone mass and has also been suggested as a possible contributing factor to oral bone loss.¹

Clinical findings and radiographs are used to diagnose periodontal disease. If periodontal status could be related to skeletal mineral status,

it may be possible to determine people at risk. Kribbs¹⁶ recorded periodontal measurements in normal females and females with osteoporosis and compared findings. Periodontal measurements included pocket depth, recession and bleeding on probing. The density of the mandible was greater in the normal group and the number of lost mandibular teeth was greater in the osteoporosis group. There was, however, no significant difference found in the mandibular periodontal measurements or in age between the two groups. Panoramic radiographs were used to measure the thickness of cortical bone at the angle of the mandible and the overall height of the mandible. There were no significant differences between the normal and osteoporosis groups. There was a negative correlation between age and cortical thickness values for both groups. Kribbs concluded that only mandibular bone mass and the number of teeth were useful parameters in determining which variable best distinguished the females with osteoporosis from the normal females. She also concluded that finding no differences in the periodontal measurements between the two groups may be attributed to either the measurements not being influenced by skeletal bone disease or the presence of the osteoporosis being obscured.

The effect of bone loss on jaws after tooth extraction has been studied intensively. A study by Klemetti¹² suggests that in some phases of resorption, osteoporosis affects the rate of resorption and bone density. The effect of bone loss on periodontal conditions and the development of periodontal pockets has also been studied and the results suggest that there is no clear correlation between periodontal health or number of teeth present and general mineral status of the skeleton.

Klemetti et al¹² investigated whether advanced periodontal disease or the number of remaining teeth correlated with the bone mineral status of the skeleton or the bone mineral density of the mandible. Results did not correlate the number of teeth with levels of bone mineral density (BMD). The groups with the highest and lowest levels of minerals did not differ in number of teeth. The researchers suggest that even if a correlation of periodontal disease to general mineral status of the body cannot be made, individuals who have high mineral values in the skeleton appear to retain their periodontally involved teeth longer than those with osteoporosis.

An unexpected finding was that subjects whose mineral status was better than the mean had significantly more deep pockets. Deep probe readings correlated with the high BMD in the lingual cortex in the anterior region of the mandible. Metabolic changes are visible earlier in trabecular than in cortical bone. Higher bone density in the periodontally affected regions may have resulted from a defense reaction of the trabecular portion and cortical bone on the lingual side.¹²

A study done by von Wowern, Klausen and Kollerup² compared the bone mineral content (BMC) between females with osteoporosis and a control group. Plaque levels, gingival bleeding and loss of attachment were also compared. The control group had significantly higher BMC in the mandible and forearm than the osteoporosis group. There were no significant differences between the groups in plaque and gingival bleeding measurements but the females with osteoporosis showed greater periodontal attachment loss. The results suggest that severe osteoporosis may significantly reduce the BMC in the jaws and may be associated with loss of periodontal attachment.²

Local infection is the most significant feature of periodontal disease but there is some impact from systemic factors.¹⁴ The mineral status of the

skeleton, which reflects its remodeling rate, may be associated with the retention or loss of teeth in advanced periodontal disease.¹³

Osteoporosis, Diet and Calcium Deficiency

Current literature identifies calcium deficiency as a strong contributing factor to osteoporosis, especially in cortical bone loss. Ninety-nine percent of total body calcium is present in the skeleton.¹⁰ Calcium is normally obtained through dietary sources, but significant amounts are lost daily through urination and through the digestive juices. The recommended daily allowance (RDA) of calcium for adults ranges from 800 mg¹ to 1200 mg.⁸ Additional calcium is required by pregnant and lactating women. Baby-boom females are now reaching middle-age. Many had a deficient milk intake throughout their teens. Also, many of these females are having children later in life and are breast-feeding. These factors all exacerbate osteoporotic bone loss.¹⁰

Hormonal changes during menopause also cause accelerated calcium loss. A deficiency in Vitamin D and estrogen has been associated with demineralization and increased risk of fractures, respectively.¹⁷ Due to the higher incidence of osteoporosis in women, much research is being done on the relationship between estrogen levels and its effect on bone density.

Estrogen therapy is usually not indicted for women who are more than 10–15 years postmenopause because the period of accelerated bone loss that accompanies menopause has passed. However, the National Osteoporosis Foundation recommends that estrogen be given to females past menopause who are “actively fracturing bones”.

Numerous studies have been carried out on both animals and humans. Mohammad et al¹ state that osteoporosis has been induced in rats and dogs by diets that are deficient in calcium and/or by diets containing excessive phosphorus. Another study conducted on rats by Bissada and DeMarco¹⁸ revealed that osteoporosis was induced by a hypocalcemic diet but it had no significant effect on the migration of the epithelial attachment or height of alveolar bone.

Conclusion

It is evident from the literature that there are many conflicting and inconclusive studies on alveolar bone resorption and skeletal bone loss. Because periodontitis is no longer seen as a single disease but rather one with several forms, and because both periodontal diseases and osteoporosis have multifactorial etiologies¹⁰, more research is needed to determine whether or not there is a relationship between periodontal diseases and osteoporosis.¹ In addition, there appears to be no general agreement regarding the interpretation of levels of bone mass loss as being indicative of osteoporosis. Controversy still remains as to whether osteoporosis is manifested in alveolar bone and whether bone quality, quantity, or both is affected.¹¹

To date there is no consensus on the prevention and treatment of osteoporosis. It is important that dental hygienists when reviewing or updating medical histories, watch for clues. Ask clients about diet and calcium intake. A brief dietary history may reveal a low calcium intake¹⁰ and suggest the need for referral to a nutritionist. Monitor periodontal bone loss closely and refer appropriately. In females with low residual ridges, osteoporosis should be considered. Just as there would be no hesitation by dental hygienists to refer a client for a suspicious oral lesion, there should be no hesitation in discussing signs, symptoms and oral manifestations of osteoporosis and the possible need for

referral. It is in the clients' best interest that dental hygienists keep abreast of advances related to systemic diseases like osteoporosis and be aware of the possible impact on the oral health of clients.

References

1. Mohammad, A. R., Jones, J. D., Brunsvold, M. A.: "Osteoporosis and periodontal disease: A review." *CDA Journal* 1994, 22(3), 69–75.
2. von Wowern N., Klausen B., Kollerup G.: "Osteoporosis: a risk factor in periodontal disease." *Journal of Periodontology* 1994, 65(12), 1134–1138.
3. Jeffcoat, M. K., Chesnut, C. H.: "Systemic osteoporosis and oral bone loss: evidence shows increased risk factors." *JADA* 1993, 124, 49–55.1.
4. Boyan, B. D., Schwartz, Z.: "Diagnostic tools and biologic models for studying osteoporosis and oral bone loss: Tissue sampling." *Journal of Bone and Mineral Research* 1993, 8(2), S557–S561.
5. Ruttimann, U. E., Webber, R. L., Hazelrig, J. B.: "Fractal dimension from radiographs of peri-dental alveolar bone." *Oral Surgery, Oral Medicine, Oral Pathology* 1992, 74(1), 98–110.2.
6. McLaughlin, Anne: "Osteoporosis." *BC Woman* 1996, 26–29.
7. Anderson, K. N., Anderson, L. E.: *The Signet/Mosby Medical Encyclopedia*. New York: Nal Penquin Inc., 1987, p. 428.
8. Baxter, C. J., Fattore, L.: "Osteoporosis and osseointegration of Implants." *Journal of Prosthodontics* 1993, 2(2), 120–125.
9. Southard, K. A., Southard, T. E.: "Comparison of digitized radiographic alveolar features between 20- and 70-year-old women." *Oral Surgery, Oral Medicine, Oral Pathology* 1992, 74(1), 111–117.
10. Baxter, J. C.: "Osteoporosis: oral manifestations of a systemic disease." *Quintessence International* 1987, 18(6), 427–429.
11. Dao, T. T. T., Anderson, J. D., Zarb, G. A.: "Is osteoporosis a risk factor for osseointegration of dental implants?" *International Journal of Oral and Maxillo-facial Implants* 1993, 8(2), 137–143.
12. Hirai, T., Ishijima, T., Hashikawa, Y., Yajima, T.: Osteoporosis and reduction of residual ridge in edentulous patients. *Journal of Prosthetic Dentistry* 1993, 69(1), 49–56.
13. Klemetti, E., Collin, H.-L., Forss, H., et al: "Mineral status of skeleton and advanced periodontal disease." *Journal of Clinical Periodontology* 1994, 21:84–188.
14. Klemetti, E., Kolmakov, S., Kroger, H.: "Pantomography in assessment of the osteoporosis risk group." *Scandinavian Journal of Dental Research* 1994, 102:68:72.
15. Solar, P., Ulm, C. W., Thornton, B., Matejka, M.: "Sex-related differences in the bone mineral density of atrophic mandibles." *Journal of Prosthetic Dentistry* 1994, 71(4), 345–349.
16. Kribbs, P. J.: "Comparison of mandibular bone in normal and osteoporotic women." *Journal of Prosthetic Dentistry* 1990, 63(2), 218–222.
17. Finkelman, R. D.: "Growth factors in bones and teeth." *CDA Journal* 1992, 20(12), 23–29.
18. Bissada, DeMarco: "The effects of a hypocalcemic diet on the periodontal structures of the adult rat", *J. Perio* 1974, 45:739–745.

Bonnie Craig, Assistant Professor, is the Director of UBC's Dental Hygiene Degree Completion Program and Course Coordinator of the 2nd year Periodontics course in the DMD Program.

Linda Talbot is a 4th year student in the University of British Columbia Dental Hygiene Degree Completion Program. Linda graduated with her dental hygiene diploma from Vancouver Community College in 1990. Prior to becoming a dental hygienist she worked as a certified dental assistant for several years. In addition to her part-time dental hygiene degree studies, Linda practices part-time clinical dental hygiene with a general dentist and a periodontist.

Registration Information



Information and registration forms for the 14th International Symposium on Dental Hygiene in Florence, Italy, July 2–4, 1998 is available through the CDHA's Central Office. To request a registration form contact CDHA at 1-800-267-5235. Registration forms are to be submitted by February 28, 1998.

SELF-ASSESSMENT TEST

Prepared by Ursula Pelissero, Dip.D.H.,

Professor, Dental Hygiene and Dental Assisting Program, Niagara College

Prevention and Health Promotion

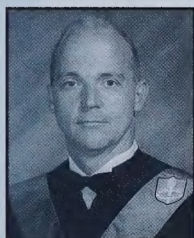
14

1. A Paradigm is:
 - a) a legislation.
 - b) an idea.
 - c) a model.
 - d) twenty cents.
 2. Healthcare is evolving and currently experiencing a paradigm shift in the following direction:
 - a) toward the Medical Model.
 - b) toward understanding that initiation of disease is prevented by recognizing and avoiding the causative agents.
 - c) from proactive to reactive.
 - d) all of the above.
 3. The ultimate goal is no longer "health" but "wellness". This philosophy is:
 - a) a condition of change ultimately attaining an optimum level of well-being.
 - b) a state which is naturally attained given sufficient resources and time.
 - c) a continual forward movement towards a higher potential of functioning.
 - d) a universal status of well-being attained by successfully meeting physical fitness tests outlined by the World Health Organization.
 4. Preventive Dentistry is the total effort to promote, restore and maintain oral health. It includes different concepts which look at prevention in relation to the **oral health-disease continuum**. This:
 - a) is a progression or sequence of values or elements varying by minute degrees.
 - b) has points dividing prepathogenic and pathogenic stages.
 - c) is represented by a "line" showing divisions known as classifications.
 - d) all of the above.
 5. Traditionally, there are three classifications of Preventive Dentistry: 1. Primary; 2. Secondary; 3. Tertiary. Which of the following statements is accurate?
 - a) The movement from 1-3 is considered a proactive approach.
 - b) In this method of classification, each preventive activity is categorized in one of the three groups on the basis of symptoms.
 - c) In this approach the client satisfaction increases and the cost of treatment decreases.
 - d) All of the above.
 6. Gordon's Classification of Preventive Dentistry, which may ultimately replace the traditional method of classification:
 - a) reinforces that many primary preventive interventions should be limited to high risk individuals.
 - b) considers the target group, professional involvement and the cost savings aspect.
 - c) has three levels of prevention known as Universal, Selective and Indicated.
 - d) all of the above.
 7. Health Promotion:
 - a) is a process which enables people to increase control over their current and future health.
 - b) is a process which is a series of actions which are continual, resulting in a sudden, dramatic change.
 - c) is a concept which has successfully replaced the Prevention concept.
 - d) supports a paradigm shift from proaction to reaction.
 8. Health Promotion involves:
 - a) emphasis on personal risk reduction.
 - b) individual and community participation in making health and social policy.
 - c) mediation between people and their environment.
 - d) all of the above.
 9. In Health Promotion the ultimate goal to attain in wellness is high-level wellness. This is:
 - a) the optimum level of wellness which can be reached.
 - b) achieved by physically-fit, able-bodied individuals.
 - c) maximizing the potential of which an individual is capable within the environment where he/she is functioning.
 - d) accomplished in the same manner by all.
 10. Oral health is a part of general health. It contributes to the quality of life (wellness). Therefore, dental hygienists must aim to help maximize the oral health status of their clients by "thinking globally". This can be accomplished by:
 - a) interaction with other health professionals.
 - b) community involvement.
 - c) remaining active within their professional association.
 - d) all of the above.
- Answer Key**
(1)(c); 2(b); 3(c); 4(d); 5(b); 6(d); 7(a); 8(d); 9(c); 10(d)

PRACTICE PROFILE

Featuring Bruce Coyle, RDH

Dental Hygienist Provides Mobile Dental Hygiene Services



All of his experiences and education in business, nursing and dental hygiene have greatly benefitted Bruce Coyle's opportunities to providing mobile dental hygiene services to those who cannot access proper preventive dental care.

Bruce Coyle, RDH is a dental hygienist providing mobile care to the elderly and invalids in their homes or at long-term care facilities throughout the area of British Columbia called the West Kootenays.

Coyle totes a mobile dental cabinet containing everything a dental hygienist requires from an X-Ray machine to a developer, in a stack of metal cases about half the size of most filing cabinets. His mobile service provides oral screening, an oral care plan, referrals to a dentist or doctor, in-services for people who work with the elderly, denture cleaning and labelling and periodontal therapy.

In 1990, Bruce retrained at Algonquin College in Ottawa as a Nursing Assistant. Shortly after graduating, he moved to Nelson, British Columbia where he worked at Nelson and District Home Support Services with homebound elderly and the mentally handicapped.

In 1992, he upgraded his Nursing education at Vancouver Community College to complete his qualification as a Licensed Practical Nurse. He has since worked in part-time and casual employment in long-term care.

During his studies at the University of Manitoba from 1994 to 1996, he was able to learn about Arlyne Brodie's Dental Hygiene Clinic, and Barbara Crosson, who also offers oral hygiene services through a mobile practice. The prospect of working as a self-employed hygienist excited Bruce Coyle.

Bruce was able to start his business last February 1997 after the province of British Columbia passed a law allowing dental hygienists to work without supervision by a dentist, provided the patient has been to the dentist within the last 365 days. Coyle must follow any instructions set out by his patients' dentists and report to these dentists. In most cases, his services are covered by family members or insurance (although he cannot bill directly to an insurance company), and in some facilities, funds set aside for hair and foot care are also being used for dental care.

He currently works in three long-term care facilities and he is expected to work in several more facilities during the next six months. In addition, he has set up part-time dental clinics in outlying areas of West Kootenay in association with local dentists.

"This gives me the opportunity to service people who have to travel up to two hours to a dental office in a major town" said Coyle. "Setting up part-time clinics using the mobile equipment is a cost-effective and inexpensive way of establishing a dental/dental hygiene clinic".

Bruce's future goals are to consolidate his work in long-term care, the homebound and establish further outlying dental hygiene clinics. Furthermore, he would like to establish contracts directly with industries, providing more cost-effective dental care. "This could be achieved by establishing a preferred provider network with other dental hygienists, dentists and other health care providers" says Bruce Coyle.

With recent changes occurring across the provinces in the dental hygienists' profession, Bruce Coyle's practice may offer exciting alternatives and opportunities for dental hygienists.

"I feel the time is right for establishing alternative reimbursement systems with changes to traditional dental insurance plans," concluded Coyle.

15

M-DEC

MODULAR - INTEGRATED - PORTABLE DENTAL SYSTEM

MOBILE, LIGHT-WEIGHT, DURABLE

- PORT-OP III Portable dental operator
- PORT-XD Portable dental x-ray
- M-DEC Instrument/supply case
- M-DEC Portable dental chair

The ultimate choice of non-traditional practitioners including:

- B. Crosson, R.D.H.
- B. Coyle, R.D.H.
- T. Grover, D.D.S.
- Z. Nathoo, O.D.S.
- L. Martens, R.D.H.
- M. Maletz, R.D.H.
- M. Soth, R.D.H.

PACIFIC MOBILE DENTAL EQUIPMENT M-DEC DISTRIBUTOR

949 Pacific Place Duncan, B.C.
Canada V9L 5S5
Tel/fax: (250) 746-0049

CANADIAN DENTAL HYGIENISTS INSURANCE PLAN — CDHIP

Why Disability Insurance?

16

This article was written by Terry Kennedy. Terry is an Account Executive within Sun Life's Association Business Division. She is also a strong proponent of disability insurance programs.

Like most people, I really hadn't given much thought to my disability insurance plan until I needed it. It's kind of strange but, I guess I always thought that illness or injuries that were so disabling as to take me out of my job would happen to someone else — not me! But I really got my eyes opened when suddenly I was the person who became one of the statistics. Let me share my story with you.

I was twenty years old and enjoying really great health. I was physically fit, played tennis every evening and had a really positive outlook on life. During a routine examination, my physician discovered a small lump in my right breast. Given my age, however he felt that it was probably just a cyst and I shouldn't be too concerned — "we'll just keep an eye on it". I felt somewhat reassured — after all, he's the doctor! But, you know that little niggling feeling that keeps popping up in the back of your head? The one that says, maybe it's something more? I had that niggling feeling, in a really big way. You see, my grandmother had passed away from breast cancer when my mother was only eleven years old. I had read reports that indicated there were some heredity issues connected to breast cancer, and that niggling feeling just got worse.

Well, my doctor and I "kept an eye on it" — for five years! My little lump grew and grew, until it became the size of a golf ball. My doctor continued to tell me that it was probably just a cyst and I shouldn't worry about it, but I decided to get a second opinion. The second opinion confirmed my niggling feeling — this was no cyst, but rather a tumor. Thus began the cycle of treatment that accompanies such a diagnosis.

My need for disability insurance was suddenly realized — and at an age when most people don't even give it a thought! I was away from work for a time, and I found I had to begin to collect my disability benefits. I was fortunate enough to have a disability plan which was provided by my employer at the time. My ongoing income was one thing that I didn't have to worry about. My mortgage continued to be paid, my bills were paid — those areas of my life continued as normal, thanks to my disability insurance plan.

I recovered and I've been symptom free for fifteen years, but I sure had my eyes opened. Disability Insurance made certain that while I was disabled and concentrating upon regaining my health, I didn't have to worry about meeting my financial obligations. Thankfully, my employer at the time had the foresight to insure my ability to earn an income.

The Sun Life disability insurance plan is the only plan endorsed by the CDHA. This is a powerful endorsement. This means that it's not just you and the insurance company, but rather you, your 7,000 member strong Association and the insurance company.

Second, Sun Life is one of Canada's largest insurance companies and one of the most strongly capitalized financial institutions in North America. It has the highest possible rating from Standard and Poor's (AAA Superior), A.M. Best (A++ Superior) and Duff & Phelps (AAA). This means that you can rest assured that Sun Life will be there, when and if you ever need to make a claim against your disability policy.

And finally, this disability plan was designed with you in mind. We haven't taken a "cookie cutter" approach to plan design — we considered the needs and wants of people in your profession — people just like you — when designing this plan. It offers a choice of Elimination Periods, automatic coverage for HIV and Hepatitis B, and even allows you to enhance your coverage with an optional rider to extend the basic definition of total disability to age 65. With this rider, available to members under age 50, Total Disability benefits are payable to age 65 if sickness or injury prevents you from performing the essential duties of your regular occupation, and you are not gainfully employed elsewhere. You can also select a Cost-of-Living Adjustment rider to keep your benefits in pace with inflation. And because of the strength of your Association, all of this has been made available at a reasonable cost. To give you an idea of just how affordable this coverage is, consider this. If you are a 30-year-old non-smoker eligible for \$2,000 of monthly benefit and have selected a 120 day Elimination Period, your monthly premium for the base plan is \$23.20. If you wanted to expand this coverage to include the enhanced definition of disability and the Cost-of-Living rider, your monthly premium would be only \$35.60. Of course, as you pay the premium from your income, the \$2,000 you would receive if you had to collect would be tax-free.

If you have any questions, you can contact the Sun Life Association Business Customer Service Representatives, Monday to Friday 8:30 a.m. to 4:30 p.m. EST at 1-800-669-7921 or (416) 408-7390 in Toronto.

Why disability Insurance? Because it doesn't always happen to someone else. Sometimes, it's you.

THE CANADIAN DENTAL
HYGIENISTS ASSOCIATIONL'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Are you prepared for the unexpected?

No one expects to become disabled.
However, it does happen.

That's why the Canadian Dental
Hygienists Association (CDHA) with
Sun Life Canada has designed a
unique insurance plan tailored to
Canadian dental hygienists.

CDHIP (Canadian Dental
Hygienists Insurance Plan) offers
all the coverage and options
needed to protect your
professional interests,
lifestyle and family.

**Sun Life****SUN LIFE CDHA
INSURANCE PLAN**P.O. BOX 4097,
STATION ATORONTO, ONTARIO
M5W 2Z5

1-800-669-7921

TOLL FREE

(416) 408 7390

CDHIP - THE INSURANCE PLAN MADE FOR CANADIAN DENTAL HYGIENISTS

By Carla Loiacono, RDH, MS, Assistant Professor, Jesse Jenkins, DDS, Assistant Professor, and Patricia Regner Campbell, RDH, MS, Assistant Professor — Baylor College of Dentistry, The Texas A&M University System

Management of the Patient with Mental Retardation: A Case Report

18

Abstract

During the course of their careers dental professionals frequently interact with individuals presenting with mental retardation. In order to provide the best possible quality of care they should be aware of the etiology of mental retardation, the medical and dental conditions associated with this disability, and the services which can be incorporated into a treatment plan focused on improving the oral health for these individuals. This article identifies basic information dental professionals need to know when treating people with mental retardation, as well as describing a case report of the dental hygiene services that were provided to a patient presenting with this disability.

Introduction

Approximately 500 million people are classified as disabled worldwide.¹ According to the 1991 Canadian census statistics, some 4.2 million Canadian citizens reported having some type of functional disability. Recently Canadians with disabilities have begun demanding that they receive equal access to health care, beginning litigation procedures citing the provincial Human Rights Codes and the *Canadian Health Act*.¹ In 1960, the United States passed *The Americans with Disabilities Act* to prevent discrimination against Americans with disabilities, and to ensure them equal access to health care.²

The etiology of mental retardation covers a broad range of conditions that impair the development of the brain before birth, during birth or in childhood.^{3, 4} In many individuals, identifying the exact condition which resulted in the development of mental retardation is impossible. Down's syndrome, fetal alcohol syndrome and fragile X are three conditions that are known to result in the development of mental retardation.^{3, 4}

In 1992, the American Association on Mental Retardation (AAMR) revised the definition for mental retardation. This disability is now determined as:

"identifying deficiencies in the following areas, a intellectual functioning level (IQ) below 70–75, a significant limitation in two or more adaptive skill areas, and this condition must have been present since childhood (defined as age 18 or less)".^{3, 4}

Currently, this disability affects 6.2 to 7.5 million people living in the United States.² Some of the adaptive skills outlined by the AAMR include: communication, self-care, self-direction, social skills and home living.^{3, 4} Interestingly, a person who presents with a limited intellectual functioning but no limitations in adaptive skills is not considered mentally retarded.⁴

According to the AAMR, persons are no longer classified as being mildly, moderately, severely or profoundly mentally retarded. The AAMR's new classification looks at both intelligence and the amount of support a person needs with life skills. The first step in identifying whether a person is mentally retarded is a series of standardized intelligence tests. Then the person's strengths and weaknesses in the following areas are examined: (1) intellectual and adaptive behaviour skills, (2) psychological/emotional status, (3) physical/health/etiological considerations and (4) environmental considerations.⁴ Finally, an interdisciplinary team determines the level of support the individual will need over their lifetime.⁴ These support levels are classified as being intermittent, limited, extensive or pervasive. An example of an intermittent level of support is the assistance required to help a person find a job. Limited support might be the short-term help a person needs when training for a job or making a transition from school to a work environment. Extensive support means that a person needs a level of daily assistance to function at home and/or in a work environment. Pervasive support means that a high level of daily assistance is required across all aspects of life, such as eating, dressing, hygiene needs etc.^{3, 4}

Several oral manifestations often occur in conjunction with mental retardation. These conditions include microdontia, abnormally large lips, delayed eruption, bruxism, increased caries, periodontal disease, malocclusion, mouthbreathing and temporomandibular joint dysfunction.^{5–7} Previous research has been somewhat conflicting in identifying the prevalence and severity of dental caries in individuals who have mental retardation.⁷ However, some factors researchers found to be consistent in the development of carious lesions in this population are advancing age, poor oral hygiene, and diet.⁷

Periodontal disease has been found to be more prevalent in people with mental retardation.^{7, 8} Periodontal conditions in this population are often compromised by bruxism, severe anterior open bite, malocclusion

and mouthbreathing,⁷ as well as by the fact that these individuals typically rely on health care providers to perform oral hygiene care and emphasize the importance of preventive measures.⁷⁻⁹ Regardless of the delivery system used, researchers have recorded beneficial therapeutic results in using chlorhexidine gluconate solutions to inhibit plaque formation in this population.¹⁰⁻¹³

Mouthbreathing is a habit that results in localized gingivitis occurring on the anterior labial surfaces of the maxillary anterior teeth.^{14, 15} This gingivitis initially manifests as a diffuse redness which occurs around the gingival margin and then spreads into the interdental space, resulting in dramatic inflammation of the papillary gingiva. This gingivitis is directly related to the degree of lip coverage of the maxillary anterior teeth. Severe gingivitis is present when there is inadequate lip coverage of the anterior labial region of the maxillary teeth.¹⁶ In a study conducted by Bresolin et al,¹⁵ it was determined that individuals who presented with a mouthbreathing habit also appeared to have a long face. This is due to an increased height of the upper and lower anterior face, higher palatal vaults, and narrower maxillary intermolar widths, which result in the occurrence of a posterior crossbite.

Individuals who present with mental retardation frequently have a variety of physical disorders that occur in one or more of the following systems; nervous, auditory, visual, neuromuscular and cardiovascular. Nervous system disorders may include seizures, phobias, anxieties, psychoses and other neurological problems. Auditory problems may result in deafness and impaired speech. Visual difficulties may be manifested as nearsightedness, cataracts or blindness. Neuromuscular problems such as scoliosis and stunted growth commonly occur in individuals who are also mentally retarded. Rheumatic heart disease, damaged heart valves and heart murmurs also frequently occur in this population.⁵

The following case report details an approach to providing dental hygiene services for a person presenting with extensive mental retardation receiving care in the Special Care Clinic at Baylor College of Dentistry. It should be made clear from the outset that this patient should not be considered "typical" of a person with mental retardation — this patient exhibited many unique factors which affected the success of the treatment provided.

Case Report

A 45-year-old black female presented to the Baylor College of Dentistry Special Care Clinic to receive treatment. The patient's medical history revealed previous bladder problems, an allergic reaction to penicillin and extensive mental retardation. Due to the patient's impaired mental status, her mother remained in the dental clinic to answer questions regarding medical and dental histories. According to the patient's mother, her daughter was in good health, not currently on any medications, and she indicated that her daughter's last dental visit was three years ago. The patient's chief dental complaint was that she "wanted her teeth filled". Her vital signs were all within normal limits, and a medical consultation was requested to determine the patient's Hepatitis B, C and tuberculosis status, as well as to assess the need for any precautions prior to receiving dental/dental hygiene treatment.

Visual examination of the patient revealed that she was a mouthbreather, had thick lips, and held her mouth open while at rest, characteristics often exhibited by individuals who are mentally impaired.⁸ When the patient smiled, her mandibular lip flared dramatically to the right side,

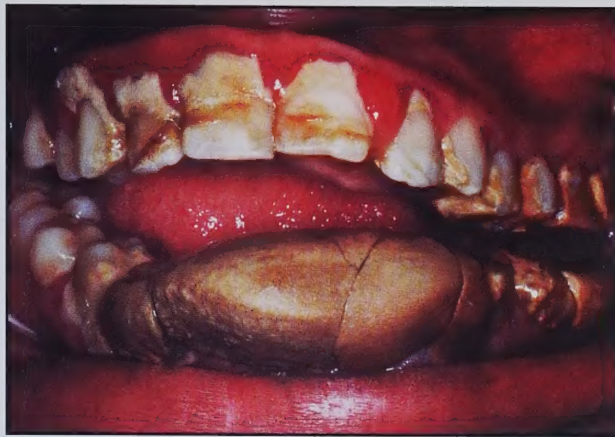


Figure 1



Figure 2

similar to what would be expected of a person who had previously had a cerebral hemorrhage. When the patient's mother was questioned, she denied any past history of a stroke.

Clinical examination revealed inadequate lip coverage of the maxillary anterior teeth, generalized exostosis, a high-vaulted palate, and an exorbitant amount of calculus accumulation that covered not only the entire clinical crowns of the teeth but the attached gingiva as well (Figure 1). On the mandibular anterior teeth the deposit was so thick that it was approximately 3 mm away from encompassing the alveolar mucosa. The calculus accumulation on the mandibular anterior teeth caused the patient's lip to protrude and her tongue to recede. She presented with an anterior open bite measuring 14 mm and a posterior crossbite molar relationship. The patient occluded on the first and second molars on her right side and the first molar and second premolar of the left side (Figure 2). Since the calculus accumulation covered both the occlusal surfaces and the sulcus in many areas, a sextant approach to scaling and root planing was recommended prior to completion of the dental and periodontal examination. A panoramic radiograph revealed moderate bone loss as well as calculus accumulation. Finally, it was noted that the patient had an advanced case of halitosis.

On the first dental hygiene visit, intraoral photographs were taken and the mandibular anterior sextant was scaled and root planed using a magnetostrictive ultrasonic instrument. The operator followed the craze lines that were present in the calculus in an effort to dislodge the calculus bridge (Figure 3). Instrumentation proceed

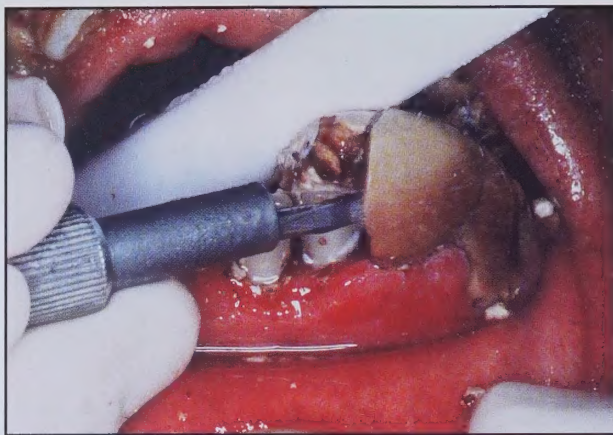


Figure 3

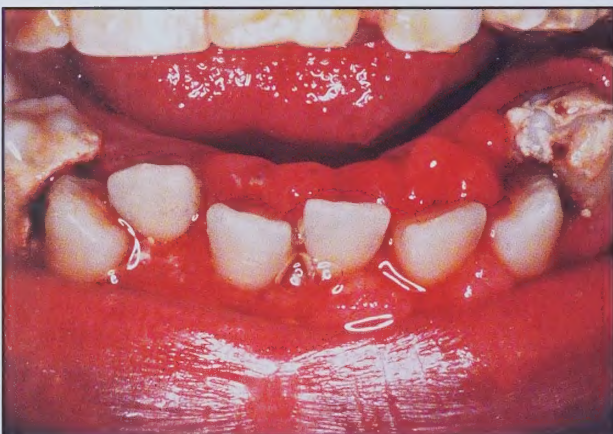


Figure 4

carefully as the radiograph reveal advanced bone loss and potential tooth mobility. Once exposed, the gingiva revealed diffused gingivitis which was erythematous, bulbous, hyperplastic and edematous, with indentations corresponding to the locations of calculus accumulation (Figure 4). The ultrasonic scaler was not very effective in removing the hard deposit so the treatment plan was revised to include a piezoelectronic scaler at the next visit.

The patient's mother was asked to complete a two-day dietary assessment for her daughter in an effort to determine if food choices contributed to calculus accumulation. Analysis of this data revealed that the patient consumed a moderate amount of carbohydrates, soft foods and sugars. It was determined that the combination of mouthbreathing, anterior open bite, xerostomia and the consumption of soft foods and carbohydrates could result in an excessive accumulation of calculus.

The patient was given a prescription for chlorhexidine gluconate mouth rinse, chosen as it has been proven to be a safe and effective method for reducing plaque and gingivitis in persons with disabilities.¹⁰⁻¹³ Since the patient experienced difficulty in expectoration, she was instructed to brush the mouth rinse on her teeth and gingiva using the Bass tooth brushing technique. The patient correctly demonstrated this method of brushing, and her mother was asked to remind her daughter to brush twice daily as well as to help her brush some of the more inaccessible areas. It was also recommended that the patient use a tartar control toothpaste.

When updating the health history at the second visit, one week later, the patient's mother reported that she had taken her daughter to a



Figure 5

physician and he had prescribed "some type of antibiotic" for her gingivitis, but she was uncertain about the exact name of the antibiotic. At a subsequent appointment, it was determined that Adalat 30 mg had been prescribed for the patient's elevated blood pressure and not an antibiotic as originally reported by the patient's mother. It was also evident that the patient's gingiva was not responding to the treatment provided during the previous week. The gingiva was erythematous, bulbous and sloughing off in many areas of the mouth. Since this is a common side effect of tartar control toothpastes, the patient was instructed to discontinue using this type of dentifrice. In addition, a tenacious plaque-like substance was evident coating all tooth surfaces, and a light layer of calculus accumulation was noted on several teeth that had been instrumented previously (Figure 5).

Throughout the course of treatment, a variety of sonic, ultrasonic and piezoelectronic instruments were used to remove hard deposits. The combination of the piezoelectric scaler containing chlorhexidine gluconate was found to be most effective in this case. It is interesting to note that when scaling and root planing the mandibular left quadrant, the clinical crown of a primary molar was found to be embedded in the hard deposit. Anesthesia was not required for scaling and root planing but was occasionally used for periodontal probing and access to difficult areas.

The periodontal examination revealed probing depths ranging from 4-11 mm, with the deepest readings isolated to tooth numbers 14-16, 18, 21 and 23. Class II mobility was noted on tooth number 24 and Class III mobility was present on numbers 15, 18, 22, 25 and 26. Isolated areas of recession were observed on tooth numbers 14, 23 and 26 as well as a periodontal abscess on tooth number 18. The patient was given a prescription for Doxycycline to treat the abscess, the area was scaled and root planed a second time and examined at a follow-up dental hygiene visit. Following scaling and root planing it was determined that the periodontal abscess was most likely due to a combination of bone loss, bacterial accumulation and the fact that the area was difficult for the patient to maintain.

The patient's gingiva was examined at each visit and several areas showed no improvement. Those areas included the facial surfaces of teeth numbers 6-10. Upon assessing the patient, a consultant periodontist recommended that another deep scaling and root planing be completed in this area. The periodontal abscess around tooth number 18 improved and the patient reported a reduction in discomfort in this area. A citric acid salivary test was conducted to try to determine

an explanation for the excessive calculus accumulation and reaccumulation. Results of the test revealed a protein total of 250 mg per second, which is consistent with a patient who presents with an oral infection. The patient's salivary flow rate was normal, 0.59 ml per five-second output.

During the course of treatment, the medical report was returned. It indicated that the patient had a systolic heart murmur and was being treated for hypertension as well as elevated cholesterol levels. The patient was taking Adalat 30 mg for blood pressure and erythromycin ethylsuccinate 800 mg two hours prior to an appointment and 400 mg six hours after initial dosage as a pre-medication for her heart murmur. Erythromycin ethylsuccinate was chosen because of the patient's allergy to penicillin. At ensuing appointments, after confirming with her mother that the antibiotic pre-medication had been given, the patient's vital signs were monitored. On several occasions it was determined that the patient had not taken the pre-medication as prescribed and she was dismissed. The patient's blood pressure ranged from 158/84 to 115/105, while pulse and respiration remained at the high end of normal readings. When identifying the possible causes for the fluctuation in the patient's blood pressure readings, it became evident that the mother had frequently forgotten to purchase or give her daughter the Adalat as prescribed. The importance of adhering to the prescribed medical recommendations was stressed with the patient's mother. Since the patient's blood pressure readings remained elevated, a second medical clearance letter was forwarded to patient's physician.

Homecare instructions consisted of educating both the patient and her mother about brushing technique and frequency. The etiology of periodontal disease and dental caries was not addressed due to the patient's mental status and her mother's lack of interest in the subject. Educational services were kept simple and repetitive in nature. The patient was given a musical toothbrush and instructed to brush until the music stopped, which was two minutes. Although the patient was motivated to improve her homecare, it appeared that her mother did not reinforce these habits. At the completion of dental hygiene treatment, post-operative intraoral photographs were taken, a dental examination was performed revealing carious lesions on seven teeth and the patient was placed on a two-month recall schedule.

Evaluation of Dental Hygiene Treatment

Re-evaluation of dental hygiene treatment consisted of a visual examination of the gingiva, a description of the periodontium, notation of bleeding points, and recording of plaque and calculus accumulation. This non-traditional approach for re-evaluation of dental hygiene treatment was chosen since the patient became uncooperative when periodontal probing was implemented. Anesthesia had previously been used when probing to improve comfort level but the patient became very distraught and this service was discontinued. During the re-evaluation phase, the gingiva appeared coral pink in colour, bulbous, spongy and fibrotic in nature. Gingivitis was still evident in all quadrants but to a lesser degree than when the patient originally presented to the clinic for care. Calculus and plaque accumulation was evident and the gingiva around the maxillary anterior teeth continued to appear erythematous and bulbous throughout the course of treatment. It was determined that the lack of improvement was due to the patient's mouthbreathing habit.

Complications

A variety of complications arose while treating this patient. The patient's mother was a source of several obstacles to her daughter receiving

proper care. She lacked accurate knowledge regarding her daughter's health and medications, and did not reinforce oral hygiene instructions at home. Several times the patient was denied care because her mother did not appreciate the significance of her daughter receiving the prescribed pre-medication prior to treatment. It was clearly imperative to educate the patient's mother about her daughter's health and the importance of maintaining the pre-medication regime prior to receiving dental/dental hygiene care. Frequent discussions occurred regarding the significance of the mother taking an active role in her daughter's dental and physical health.

Two-month Recall Visit

When the patient returned for her two-month dental hygiene visit, there was a change in the medications she was taking. There was an increase in the Adalat dosage to 60 mg and a daily dose of Triamterene had been added to control the patient's elevated blood pressure. The patient's blood pressure at the recall visits ranged from 165/105 to 140/70, with the pulse and respiration remaining within the normal range. The patient's mother was again informed of the elevated blood pressure readings and strongly urged to seek a medical consultation as well as to follow the recommended treatment. The patient presented with generalized gingivitis and a moderate accumulation of calculus and plaque (Figure 6). The calculus accumulation was extensive enough to include the occlusal surfaces and the gingival tissue throughout the mouth. Generally the gingiva appeared to be erythematous, bulbous, fibrotic and granular in nature. The gingival tissue on the facial surface of tooth numbers 9 and 10 was still enlarged, bulbous and fibrotic at the recall visit. Quadrant scaling without anesthesia was completed on the mandibular and maxillary right quadrants.

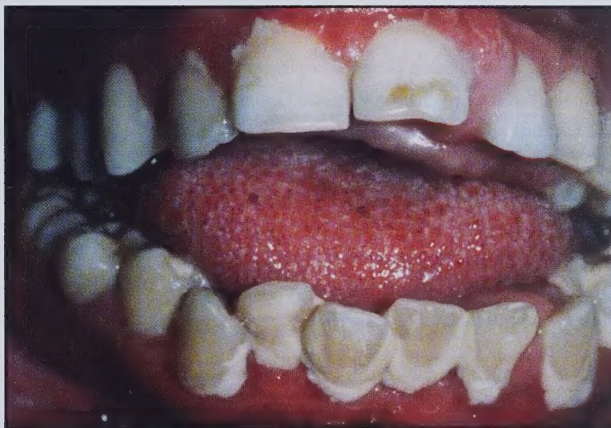


Figure 6



Figure 7

One week later when the patient returned to continue treatment, calculus reaccumulation was present in all of the previously instrumented quadrants. However, the gingival tissue had improved and there appeared to be a decrease in bleeding and tooth mobility. Anesthesia was used on the maxillary left quadrant to effectively scale and root plane tooth numbers 9 and 10, as well as improve the tissue response in this area. Very little hard deposit was found upon scaling and it was determined that this bulbous tissue was due to mouth-breathing and would not be resolved with scaling, root planing or gingivalplasty. Post-operative intraoral photographs were taken, the patient was placed on a two-month recall schedule and reappointed for restorative procedures (Figure 7).

Discussion

This patient presented with several factors that are normally associated with a person who has mental retardation. She was classified as having extensive mental retardation, and could easily be influenced by praise and rewards. She presented with a heart murmur, elevated blood pressure, a mouthbreathing habit, high-vaulted palate, severe malocclusion, advanced periodontal disease and several carious lesions.^{5-9, 13, 17} The patient's mouthbreathing habit contributed to fibrotic gingival tissue on both the facial and lingual aspects of all the maxillary anterior teeth. The high-vaulted palate present in this patient indicates a narrowing of the maxillary arch due to a mouthbreathing habit. This is consistent with the results determined when Miller et al,¹⁸ examined the relationship between open mouth posture and maxillary arch width. It was determined that the advanced calculus accumulation exhibited by this patient was also a result of a mouthbreathing habit and her moderate consumption of carbohydrates, soft foods and sugars. Her poor oral hygiene status could be related to her impaired hand skills as well as a short attention span.

During the re-evaluation phase of her therapy, a reduction in gingivitis occurred but the patient still exhibited a significant amount of plaque and calculus accumulation. There was a decrease in tooth mobility in the posterior regions but not so in the mandibular anterior area. The lack of improvement in the anterior region can be attributed to the constant force of the tongue on these teeth, as well as on poor oral hygiene.¹⁹ At the two-month recall visit, the patient again displayed a moderate amount of plaque, calculus and gingivitis as well as enlarged, fibrotic gingival tissue on the facial surfaces of tooth numbers 9 and 10.

Limitations when managing this case centred around the patient's poor hand coordination, mouthbreathing habit, mental status and short attention span, all of which impaired her ability to improve her oral hygiene condition. All of these factors also limited the supplemental care which could be recommended to the patient, such as advanced educational services and periodontal surgery. These limiting factors are frequently exhibited in persons with mental retardation and force dental professionals to provide care which may not be ideal but is the best that can be provided for that patient due to limiting circumstances. Frequently, caregivers who work with disabled persons find themselves describing the treatment plans for disabled individuals as being compromised since the treatment provided is not as ideal as that which could be rendered to an abled person.²⁰ However, these non-traditional approaches to providing care are frequently required when treating persons with disabilities. Recommendations for patients similar to the one presented in this case include; frequent recalls, educational services for both the patient and their parent/guardian and a team approach to providing the best possible dental care.

Dental professionals may find providing care to persons with disabilities both a frustrating and rewarding experience. A close collaboration between dental hygienists, guardians/caregivers, general dentists and specialists is one way that people with disabilities can receive optimal care to maintain and improve their oral health.

References

1. Jones, K. E., Tamari, I. E. "Making our offices universally accessible: Guidelines for physicians." *Can Med Assoc J.* 1997, 156(5): 648-656.
2. Loiacono, C., Muzzin, K., Guo, I. "Dental hygiene students' attitudes toward treating individuals with disabilities." *Probe* 1996, 30(6): 220-224.
3. *Mental retardation: definition, classification, and systems of supports.* AAMR 1992, 9th ed, pp 1, 6, 23-34.
4. Anonymous "Introduction to mental retardation." *ARC Newsletter* 1993: 1-2.
5. Wilkins E. M. *Clinical practice of the dental hygienist.* Pennsylvania. Williams & Wilkins, 1994, 749-752.
6. Darby, M. L., Walsh, M. M. *Dental hygiene theory and practice.* Pennsylvania. W.B. Saunders, 1995, 927-942.
7. Tesini, D. "An annotated review of the literature of dental caries and periodontal disease in mentally retarded individuals." *Spec Care Dentist.* 1981, 1(2): 75-87.
8. Tesini, D., Fenton, S. "Oral health needs of persons with physical or mental disabilities." *Dent Clin North Amer.* 1994, 38(3): 483-499.
9. Rubin, L., Crocker, A. *Developmental disabilities: Delivery of medical care for children and adults.* Philadelphia. Lea & Febiger, 1989, 320-333.
10. Burtner, P. A., Low, D. W., McNeal, D. R., et al. "Effects of chlorhexidine spray on plaque and gingival health in institutionalized persons with mental retardation." *Spec Care Dentist.* 1991, (11): 97-100.
11. Stiefel, D. J., Truelove, E. L., Chin, W. M., et al. "Efficacy of chlorhexidine swabbing in oral health care for people with severe disabilities." *Spec Care Dentist.* 1992, 12(2): 57-62.
12. Al-Tannir, M., Goodman, H. "A review of chlorhexidine and its use in special populations." *Spec Care Dentist.* 1994, 14(3): 116-121.
13. Stabholz, A., Shapiar, J., Shur, D., et al. "Local application of sustained release delivery system of chlorhexidine in a Down's syndrome population." *Clin Prevent Dent.* 1991, 13(5): 9-14.
14. Strokes, N., Della Mattia, D. "Discussing Measurement Methods, Manifestations and Treatment of the Mouthbreathing Habit." *Probe*, 30(6): 212-214.
15. Bresolin, D., Shapiro, P., Shapiro, G., et al. "Mouthbreathing in allergic children: Its relationship to dentofacial development." *American Journal of Orthodontics* 1983, 83(4): 334-339.
16. Wagaiye, E. G., Ashley, F. P. "Mouthbreathing, lip seal, and upper lip coverages and their relationship with gingival inflammation in 11-14 year-old schoolchildren." *J Clin Pedo.* 1991, 18(9): 698-702.
17. Ulseth, J., Hestnes, A., Stovner, L., et al. "Dental caries and periodontitis in persons with Down's syndrome." *Spec Care Dentist.* 1991, 11(2): 71-83.
18. Miller, A. J., Vargervik, K., Chierici, G. "Experimentally induced neuromuscular changes during and after nasal airway obstruction." *AM J Orthod Dentofac Orthop.* 1984, 85(5): 99-107.
19. Gross, A. M., Kellum, G. D., Michas, C., et al. "Open-mouth posture and maxillary arch width in young children: A three-year evaluation." *AM J Orthod Dentofac Orthop.* 1994, 106(6): 635-640.
20. Jolly, D. E. "Evaluation of the medical history." *Dent Clin North Amer.* 1994, 38(3): 361-379.

Carla Loiacono, RDH, MS is an Assistant Professor and clinical faculty member at the Caruth School of Dental Hygiene, Baylor College of Dentistry/The Texas A&M University System. Ms. Loiacono has taught dental hygiene and worked with special populations for six years. She has practiced dental hygiene for 20 years, and has a certificate in Advanced Training in the Dental Care for the Disabled.

Dr. Jesse Jenkins is an Assistant Professor and a nine-year clinical faculty member of the Department of General Dentistry, Baylor College of Dentistry/The Texas A&M University System. Dr. Jenkins received his dental degree from The UTHSC Dental School in San Antonio in 1985.

Patricia Regener Campbell, RDH, MS is an Assistant Professor and Clinical Coordinator at the Caruth School of Dental Hygiene, Baylor College of Dentistry/The Texas A&M University System. She has been a practicing hygienist for 25 years and has published several articles on patient assessment.

ORAL HEALTH:

Mozambique's Response to the Challenge



Argentina Monguambe is a senior tutor in oral health at the Institute of Health Sciences in Beira, Mozambique.

Marnie Forgay is a Canadian dental hygienist, now retired and living in British Columbia.

The Challenge

Developing countries face unique problems in trying to improve oral health. For example, consider just few of the difficulties challenging Mozambique after its independence in 1975 after 500 years of Portuguese colonization:

- The economic infrastructure of the country and many of its buildings and roads were destroyed by the Portuguese before they left.
- Over 90% of the population was illiterate; only a few hundred of its 12 million people had the equivalent of a high school education.
- Per capita income in this resource-rich nation was, according to United Nations data, the lowest in the world.
- Education and health care systems during colonial times catered almost exclusively to non-Africans. Consequently, there were no facilities for training health personnel, or for their deployment throughout the country to provide desperately needed services. The few schools and health centres for local people were run by churches, mostly by expatriots (people from outside the country).
- The country's combined public and private health service was left with only 80 of the previous 500 doctors, to care for 12 million people.
- All of the 18 dentists and 25 denturists in Mozambique in 1975 left the country within one year of independence.

Almost immediately after independence, former Portuguese collaborators within the country, augmented by assistance from the apartheid regime in South Africa and Rhodesia (now Zimbabwe), began a brutal and ruthless campaign for destabilization of the country, which continued until the peace accord of 1992 and successful national election in 1994.

Mozambique's Response

The new government of Mozambique placed heavy priority on education and health. Schools were established throughout the country, and there was an intense campaign for adult literacy. Health centres were established in every area, making meagre basic health services available to the whole population.

In Mozambique, oral health is considered to be an integral component of health. The consequences of oral disease are more drastic where health care is scarce — an infected tooth can be fatal. In reality, the departure of all dentists and denturists had no effect on the oral health of the general population since their services were located only in the two largest cities and reserved almost exclusively for Europeans.

For several years following independence in 1975, training of dental therapists and assistants, called Agentes and Auxiliares, was conducted in Maputo, the capital under the direction of dentist volunteers from other countries. The goal was to train basic oral health care personnel and to see that their services were distributed throughout the ten provinces of Mozambique. None of the dentists involved in this training stayed for extended periods in the country. The training was on the job, ill-defined and varied considerably as the personnel changed. In 1984, the National Directorate of Health decided to halt further training of oral health personnel until the system of education could be reorganized.

Long-term plans were made to implement a training program for primary oral health care personnel at the Institute of Health Sciences in Beira, Mozambique's second largest city. The focus was on prevention and on community health. The curriculum addressed several of the major oral health needs: dealing with emergencies (eg extractions, local anaesthesia); treating oral infection; preventing oral diseases, promoting oral health, and collaborating in other health initiatives in the community. Of fundamental importance in the designing of the training of oral health personnel was the decision to have Mozambicans in charge of the educational process.

During the period 1985–1988, CIDA (the Canadian International Development Agency) funded a project which enabled 17 previously trained Mozambican Agentes (dental therapists) to take additional studies at the National School for Dental Therapy in Prince Albert, Saskatchewan. The Agentes selected were required to take a concentrated course in English language, and were then sent in groups of two or three to Canada, halfway around the world, for periods of almost one year. One of these Agentes in 1986/87 was Argentina Monguambe. After training in Prince Albert for several months, she served an extended externship in the tiny community of Nain, Labrador. The Agentes who studied in Canada returned to Mozambique and assumed leadership roles as oral health care supervisors in all of the country's ten provinces.

The Canada/Mozambique Project

Since 1988, CIDA has funded two successive projects to enable Mozambique's National Directorate of Health to recommence training of oral health personnel, both at the entry to practice level and advanced continuing education. These projects, which were expected to end in 1997, have been undertaken by a partnership involving the Oral Health sector of the Community Health Department of the National Directorate of Health in Mozambique and the College of Dentistry of the University of Saskatchewan in Canada. Coordinators of the project are Antonio Tanda in Mozambique and Murray Dickson in Canada.

Under this project, five of the 17 Agentes who studied at Prince Albert undertook additional training in Ireland and Canada to enable them to assume positions as Director and principal tutors at the new training centre in Beira. There are four major components of the project:

- Developing and establishing protocols for the management of the teaching institution and its courses,
- Developing and presenting courses and continuing education workshops to train new Agentes and upgrade existing Agentes,
- Conducting applied research, and
- Providing supplies and equipment for presenting courses and continuing education workshops for oral health personnel.

For several months in 1992-93, and for a two year period 1993-95, two Canadians acted in Beira as advisors to the project. These volunteer advisors from Canada were funded through CUSO. The first of these was Marnie Forgay, a Canadian dental hygienist. The role of the advisors was chiefly to work with the Beira staff as colleagues, developing appropriate management strategies and protocols, and helping to test and implement these strategies. Fostering management skills is one of the chief challenges in ensuring project success in developing countries, since there are few precedents, role models, networks of colleagues, or mentors available to the new managers to assist in learning these essential skills.

Accomplishments to Date

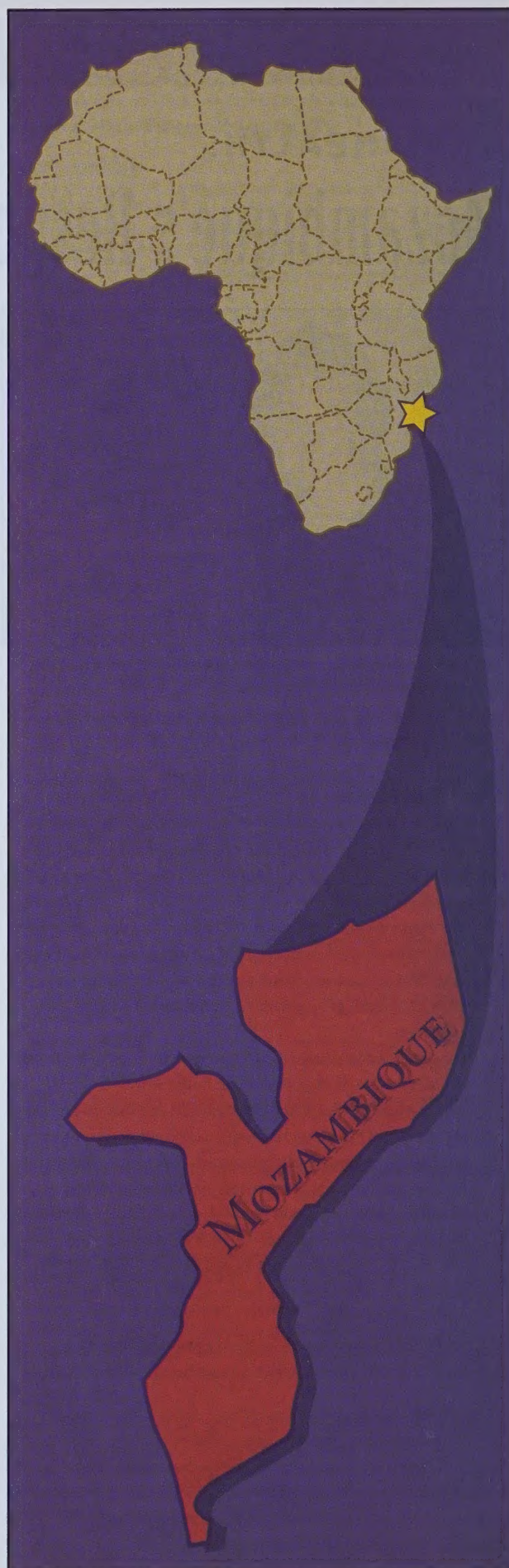
UPGRADING THE COURSE:

Prior to independence, no real oral health worker training program had existed in Mozambique. All the dentists had trained abroad and other workers had received on the job training only. The first training programs for oral health workers (Agentes and Auxiliaires) was established to launch the oral health program and develop the courses for these workers. To encourage the promotion of oral health, the government decided to upgrade Auxiliaires in order to enlarge the oral health workforce. In 1992, 11 Auxiliaires attended this course, coming from four of the 10 provinces of the country.

DEVELOPING THE COURSE FOR NEW AGENTES

After a prolonged preparation of both human and material resources, the objective of implementing a training program in oral health (for dental therapists) was achieved. A basic course was conducted from October 1992 to May 1996, with 30 participants at the beginning and 25 professionals graduating at its end.

In 1996 another basic course was initiated with 15 participants. This course will last two years. The first course lasted two and a half years in order to also teach basic general science subjects. In each subject the teachers used, and still use, the method called problem based learning, which involves researching the solution to a problem. Problem based learning is a method of teaching whereby individuals learn by using real situations as problems to resolve. Particular emphasis is given



to students taking responsibility for their own learning. In order for the course to function in the way intended, tasks were distributed such that teachers with this approach to teaching could work side by side with other teachers who did not have this experience in order to plan, implement, and document learning activities that were developed for each subject.

There were many rural practical components to the course, and the course concluded with each student undertaking a comprehensive practical demonstration in one of several provinces of the country. This was possible because of the help of a project funded by CIDA. The staff of the oral health training centre and Institute of Health Sciences in Beira (in which the centre is located) are very grateful for this support.

PROVINCIAL SEMINARS

The objective of the provincial seminars is to strengthen the capability of dental workers nationally. The seminars are presented by the oral health teachers from the Institute of Health Sciences in Beira, along with other health professionals resident in the provinces.

The seminars arose out of an evaluation done in 1990 that had the following objectives:

- To better understand the working conditions of the dental therapists and their supervisors, and provide them with technical assistance.
- To evaluate the activities and functions of dental therapists in relation to the course that had been developed for future training and in relation to the existing national strategy for dental services. Provinces were selected in the three regions of the country (north, central and south). Until now there have been seminars in nine of the country's ten provinces, namely Maputo, Gaza, Inhambane, Sofala, Manica, Tete, Zambezia, Nampula, and Cabo Delgado.

General objectives of the seminars were (after an introduction):

- a) To present and discuss results from the 1990 evaluation of dental therapists.
- b) To better organize the work areas after seeing a patient.
- c) To help the dental therapists better understand the national oral health plan.
- d) To discuss sterilization procedures and protection of dental workers and patients.

In addition, there occurred three other seminars on atraumatic restorative treatment, management, and problem based learning for advanced level therapists (tecnicos), several provincial supervisors, and Canadian colleagues.

Conclusion

The challenges faced by emerging countries as they seek to improve the oral health of their citizens are both enormous and unique to each country. The optimal role for external agencies and individuals trying to be of help is in assisting with the development and implementation of strategies to reach the goals which the country itself has identified. Importing 'solutions' from developed to developing countries is inappropriate and unproductive. There is also the rewarding opportunity to work in the area of human development, rather than simply trying to improve methods, techniques, and material resources. Working with others as open-minded and flexible colleagues and friends benefits all concerned. Individual dental hygienists from Canada or elsewhere who understand this can make contributions in developing countries through a variety of agencies or projects.

MEMORIES OF MOZAMBIQUE: MARNIE FORGAY

- Mozambique is incredibly beautiful, with miles of beaches fringed with palm trees, lush forests (after the drought ended), and very fertile soil.
- The effects of the civil war were inescapable. Many areas had no schools or health services. Almost no roads were open due to land mines. The sight of people without one or both legs because of land mines was depressing and common. Land mines still prevent much of the fertile land from returning to agriculture, and the wildlife in a famous national park has nearly been obliterated.
- Colleagues at the teaching centre in Beira were so patient with my inadequate Portuguese, and always ready to help in any way they could. They are incredibly hardworking. Most, after working a full day at the Centre, attended night school five evenings a week to upgrade their academic status.
- People in the community were very friendly and outgoing. In spite of the hardships and poverty, which often make survival difficult, they persist in efforts to make things better.
- The heat and humidity were problems for me — I found them quite debilitating. This meant that I was not able to work very efficiently, and accomplished much less than I might have otherwise. Perhaps I should have done this at a younger age.
- Mail from home was incredibly important.
- It is possible to live quite well, more simply than we are used to in Canada.
- I grew to have admiration and affection for my Mozambican friends. They made me so welcome, and were unfailing in their support and generosity.
- This experience enabled me to learn a lot about Mozambique, Mozambicans, about working in a development project, and about myself.

MEMORIES OF CANADA: ARGENTINA MONGUAMBE

- Canada is incredibly beautiful, with big cities and friendly people.
- My memories focus on the small city Prince Albert which is located in central Saskatchewan on the south shore of the Saskatchewan River. It is surrounded by rich grain fields to the south and boreal forest to the north. It is a service centre for agriculture and industry. The city offers excellent shopping and recreation.
- Family, friends, and colleagues were so patient with my inadequate English, always helping by teaching.
- The cold and sweet foods were problems for me but the people understood and were patient; they gave me warm clothes and helped me to adjust to different ways of cooking and preparing food.
- I continue to have contacts with many Canadian friends and this is very important to me. Unfortunately, letters take a long time to arrive, sometimes three to four weeks, and this is frustrating, especially when I remain a little homesick for Canada.

May 7 - 9, 1998

Metro Convention Centre

ODA/CDA National Convention

a professional development experience for the entire dental care team

**This year ODHA invites
Dental Hygienists to
*Be part of the professional team***

Here's why you should attend:

- low registration fees — \$95 for members / \$110 for non-members
- an opportunity for the dental team to get together, socially and professionally
- a dental hygiene track with outstanding speakers and topics covering a wide range of issues and trends
- a chance to network and interact with your colleagues

Some topics of interest to dental hygienists:

- Employer/employee relations
- High quality, composite dentistry for the practical dentist
- Metal free restorations for posterior teeth
- The changing world of preventive, restorative and esthetic dentistry
- The latest in dental imaging
- Facial esthetics, orthodontics and orthognathic surgery
- Managing patients with multiple antibiotic allergies, valvular heart disease, blood borne infection
- Nutrition: a new look at diet and dental health
- Approaches to eating disorders for dental health professionals
- All about oral pathology and oral medicine

...and much, much more. There's something for everyone!

Registration highlights:

- A preliminary program will be sent to all dental offices and to anyone interested in participating
- Registration forms for the convention and hotels are included in the program
- Registration forms are also available from ODHA
- Conference rates and blocks of rooms have been arranged at the Crowne Plaza Toronto Centre, Holiday Inn on King St., SkyDome Hotel and the Royal York Hotel
- As official carrier for the convention, Canadian Airlines is offering special rates

**WATCH FOR MORE INFORMATION IN
DENTAL OFFICES, PROBE AND
THE ODHA NEWSLETTER**



Dental Hygiene: Challenges and Opportunities for the Millennium

DON'T BE AN OSTRICH WITH YOUR HEAD IN THE SAND: YOU MAY GET RUN OVER!

This paper was originally presented as the Keynote Speech at the ODHA Annual Spring Meeting, Toronto, May 1, 1997. The author has drawn on her lengthy involvement with the dental hygiene profession, including as a clinician, educator, researcher, and president of the Canadian and Ontario Dental Hygienists' Associations and the International Federation of Dental Hygienists.

27

Keywords: dental hygienists, practice, education, healthcare, future

As dental hygienists, we live in a time of rapid change — changes that are shaping us, our world and our work. These changes present challenges and opportunities for the future.

The majority of dental hygienists accept that professionally the status quo is not an option — our expectations and our environments are changing. However, there are exceptions. Among this latter group, some may feel they are unlikely to be affected by change because, for example, they are currently employed in a thriving dental practice. My suggestion to this group is to consider the alternate title for this paper — *Don't Be an Ostrich with Your Head in the Sand: You May Get Run Over!*

The millennium period presents opportunities for dental hygienists who choose to become more actively involved in writing their own future. Benefits include increased personal and professional growth, enhanced professional relationships, and improved access to oral health.

In this paper, major environmental and practice-specific trends and changes are examined briefly, together with their implications for the dental hygiene profession. Using Canadian and international samples, proactive ways in which dental hygienists are managing their changing professional world are identified.

Change and the Dental Hygienist

Not only is our environment changing, but the expectations of dental hygienists themselves have been changing in terms of lifestyle, career, job security, job satisfaction and responsibility as a professional. First, we are staying in the workforce longer due to personal choice and/or financial necessity. We want work situations that provide for personal and professional growth. We are less willing to tolerate work conditions that lead to burnout or require us to compromise our professional standards. Because traditional job markets are shrinking relative to the

supply of dental hygienists, we are becoming more entrepreneurial. According to recent surveys of dental hygienists (e.g., Johnson, 1995, 1987), a sizable portion want to assume a greater role in providing oral health services to the institutionalized and other under-served populations.

Changes in the Environment

As we are changing, so also is the environment in which we work. Of particular interest are several social-demographic, epidemiological, economic, political and regulatory changes.

Social and demographic trends and changes include the aging of the population and the need for services to be more accessible to an increasingly less mobile and more medically compromised population group. These changes impact directly on what we do as dental hygienists and for whom we do it.

Coupled with this are changing consumer expectations. As a public, we are better informed and more demanding. We expect to be involved in decision-making regarding our own health and we want improved access to services, including oral health services, and value for our money.

Epidemiological changes are expected to have a great impact on dental hygiene. With the documented decline in dental caries, particularly among children and teenagers, and the increasing retention of natural teeth by the growing population of senior adults, the major problem of the future is expected to be the prevention and control of early stage periodontal disease primarily through oral hygiene and basic prophylaxis.

And we all know the most cost-effective provider — the dental hygienist. Are we getting that message about changing service needs across to potential employers, dental plan administrators and health program planners? Is this an opportunity to foster new roles and careers for the dental hygienist?

Economic trends and changes include the lingering 1990s recession. This has resulted, in the dental field, in declining dental insurance coverage, shrinking dental practices, and increasing under-employment among dental hygienists. It has also been a major factor in the introduction to managed care.

Whether or not you support or even understand the concept of managed care, it is a reality. As our healthcare system undergoes restructuring due to economic and other pressures, the same principles that apply to medical services — cost containment, evidence-based treatment planning, and delivery of care that is appropriate, cost-effective, quality and based on “pre-determined client profiles” — are now being adapted for dental plans.

For example, to be reimbursed, clients will have to obtain services through dental practices that meet specific requirements. Clients will expect their dental practice to meet the conditions of their coverage or they will find a practice that does. When dental practices become less busy, dentists tend to perform preventive services themselves. One result is increased under-employment among dental hygienists which, in turn, leads to increased interest in alternate practice sites and the regulatory changes needed to support new practice modes.

Political changes are occurring at several levels. At the non-governmental level, dental hygiene is seeking equality in its relationships with other organizations, provincially, nationally and internationally. This is essential if we are to write our own future as a profession.

The 1997 Ontario conference, with its ODA-initiated limits on registration and ODHA's proactive response, is an example of the re-negotiation of relationships between organized dental hygiene and dentistry.

Regulatory changes are having profound impact on dental hygienists and the services they provide. Self-regulation for dental hygiene as a profession now exists in five provinces — Quebec, Ontario, British Columbia, Alberta and Saskatchewan. Under self-regulation, nine out of 10 dental hygienists in Canada are directly responsible for their practice and accountable to the public. Let us be clear. In the regulatory context, the term *practice* does not refer to the dental practice or clinic in which you may work. It refers to **your** practice — what you do and the standard of care you provide.

Another regulatory change involves Quality Assurance and the establishment of multi-faceted programs to ensure continuing competence of practitioners. Suffice to say, QA is essential to being a professional and self-regulating. Together with regulations to foster improved access to dental hygiene services, these legislative changes will enhance the professional profile of the dental hygienist.

Practice-Related Changes

Another set of trends and changes involves the practice of dental hygiene and influences how we work and what we do.

Technological changes include improved assessment methods — for example, microbiological testing and documentation of findings. They also include new instrumentation tools and techniques — for example, in the area of ultrasonics.

Ask yourself: are you up-to-date on the newest proven technologies? Which ones do you currently use? And what are your plans for updating your knowledge, your skills, and your practice?

Changes in the delivery of clinical dental hygiene services are occurring. They include the development of alternative practice modes and practice sites for the dental hygienist. These new modes (work arrangements) and settings will augment, not replace, the more traditional methods in which dental hygienists work.

We already have entrepreneurial dental hygienists who take their services to homebound and institutionalized clients. I foresee neighbourhood dental hygiene clinics where clients can be assessed, diagnosed for dental hygiene ailments, receive required dental hygiene services, and referred as required to collaborating dentists and other health professionals.

Yet another trend involves the role of the dental hygienist as a **primary care provider** — that is, a point of direct access to the oral healthcare system. This primary care role is not new. In the early 1980s (almost 20 years ago), the Economic Council of Canada recommended self-regulation and the U.S. Federal Trade Commission recommended independent practice, on the grounds that existing practice regulations restricted access to dental hygienists' services. By the mid-1980s, the federally-appointed Working Group on the Practice of Dental Hygiene identified examples, primarily in the USA at that time, of clinical dental hygienists being self-employed or working as independent contractors or as associates in a dental practice.

Since the early 1990s, independent practice has been an option for dental hygienists in The Netherlands, Sweden and Denmark. Here in Canada, recent regulatory changes in several provinces have enabled entrepreneur dental hygienists to establish dental hygiene clinics in a variety of practice sites including community-based clinics and institutions. These practitioners co-exist with their dental hygienist and dentist colleagues in the more traditional private dental office, public health and educational settings.

The structure of the **healthcare team** is changing also. With the expansion of dental hygiene practice into alternative practice settings, we will see a more multidisciplinary team.

Dental hygienists will be expected to work more closely with physicians, registered nurses, physiotherapists, speech therapists, nutritionists and others involved in providing comprehensive client-centred health care. As a team member, the dental hygienist will be expected to promote oral health as part of total health, contribute knowledgeably to the client's overall care, and interact effectively with other team members and other agencies.

Implications for Dental Hygiene

We are surrounded by change and we have options. We can view change as a *crisis* or an *opportunity*. We can choose to be proactive rather than reactive in dealing with change. Our choices will vary based on our values, goals, experiences and expectations.

Among those who tend to be reactive in a changing situation and/or who do not feel competent about their ability to function in a changed environment or work situation, change may be perceived as a **crisis**.

On the other hand, among those who are more proactive, change can present an opportunity. This group is more inclined to want to write their own future by being part of the process of change and by preparing themselves for new (and often inevitable) situations. This group is often not fully satisfied with their present situation.

As a dental hygienist, are you satisfied with your work situation? As a health professional, are you satisfied that so many of our citizens cannot access our services? What are your life and career goals? Are you in for the long term? Might you be... if life deals you a different hand?

Remember those environmental and practice-related changes outlined earlier. Every one of you is presently being affected — either directly or indirectly. For some, the impact will not be felt as quickly as for others. But it will be felt!

So you have a choice to make. You choose to be either reactive or proactive — there is no neutral position. These changes are inevitable. Don't be an ostrich — they won't go away.

If you chose to be proactive, you will help to "write your own future". The need to make a choice is not new. Most of these trends and changes were identified over a decade ago. The phrase "write your own future" became a cornerstone of the 1992 International Symposium on Dental Hygiene, which was held in the Netherlands and well attended by Canadians.

To choose to be proactive does not mean you have to be on the front lines of managing the change for dental hygiene. You may choose a more supportive role. Be assured that your support is critical for those who do undertake the front-line role. Governments and other external stakeholders always consider the level of support for a group's position. Support is measured by looking at the percent who are members of an organization — yes, your membership is important! They also look at the level of dissent for a position; even minor dissent will negatively influence a proposal.

Support your profession through membership and contribute by attending local society and other meetings and providing input and balance to the policy decisions being made. By accepting policies regarding alternate practice that have been reached by consensus, you act in the broader interests of the public and dental hygiene. And who knows, you may benefit directly from these policies if you choose to make a proactive career shift yourself in the future.

Resources and Suggestions

Finally, I would like to note two major resources available to dental hygienists and offer two suggestions to position yourself proactively for change.

The first resource is ourselves. As dental hygienists, we are well positioned to respond to change. We are formally educated and regulated healthcare professionals. We provide essential preventive and health promotion services. Our clinical practice is founded on a unique body of knowledge, formally recognized standards of education and of practice, a code of ethics, and a process of comprehensive care.

The second resource involves our professional and regulatory organizations. In Ontario, as in four other provinces, we benefit from having both a regulatory college (CDHO) to protect the public interest and ensure standards are maintained and two professional associations

(ODHA and CDHA) to promote and protect the interests of our profession. While the mandates of the three organizations are different, we benefit because each in its separate way works to promote and enhance the profile of dental hygiene among the public and the various stakeholder groups.

My first suggestion involves the education of the dental hygienist and is multi-part. First, dental hygienists who are interested in alternative practice should consider what additional clinical and non-clinical knowledge and skills they will require. This is especially important for the Ontario 1+1 program graduate who has completed one year dental assisting and one year dental hygiene. Elsewhere in Canada, undergraduate dental hygiene programs consist of three academic years, either direct entry or with a prerequisite one year of university; the exception is Saskatchewan where the program is two years of dental hygiene education. In Europe, where the delivery of dental hygiene services is changing, dental hygiene programs typically are or will be three years in length. Regardless of their basic dental hygiene education, entrepreneurial dental hygienists who wish to operate their own practices may require additional expertise in business and finance.

Second, ODHA may want to reconsider its long-standing request to the government to establish a direct entry two-year dental hygiene program. Given the changes since this request was submitted, a minimum two-year and preferably three-year program would seem to be more appropriate in order to prepare dental hygienists for the challenges of future practice. In addition, a longer, fuller program would facilitate articulation with university degree programs and entry to graduate schools. This is important especially for those dental hygienists who wish to pursue non-clinical practice opportunities, for example, in administration or research.

And lastly on the topic of education, continuing education courses appropriate for the entrepreneur dental hygienist are required. A variety of educational vehicles should be considered, including the Internet.

My second suggestion is much briefer and deals with *how to get there from here*. This suggestion is directed primarily to those dental hygienists who are ready to seize the opportunity of change.

For this group, your first step is literally to write your own future. Make a personal business or career plan. State your goal and objectives — that is, what you want to do. Identify the activities involved to achieve your goal and the personal and other resources you will need. Determine how you will measure your progress. Then make it happen!

While you can expect hard work and some frustrations along the way, you will benefit from increased personal and professional growth and enhanced professional relationships.

In conclusion, there are four activities to consider for the road ahead:

1. Communicate,
2. Cooperate,
3. Collaborate, and
4. Initiate.

With these activities, you are choosing to be proactive, whether you work on the front-lines or behind-the-scenes. Just don't choose to be an OSTRICH!

ARTICLE:

Critical Steps in Instrument Cleaning: Removing Debris After Sonication

Authors: Nancy W. Burkhardt, RDH, BS.MEd, ED.D, James Crawford, PhD

30

Although we are not able to test each instrument after sterilization for persistent microorganisms, and therefore do not have a failsafe for guaranteeing sterility, closely following accepted levels of infection control and sterilization favours success. This article discusses ultrasonic cleaning and rinsing as critical measures to be taken in the sterilization process.

This article begins with a discussion on the correct monitoring of sterilizers. The Centers for Disease Control and Prevention (CDC) recommend weekly, or more frequent, testing using biologic indicators (BI) that the spore test failed in 15 to 51 percent of dental office sterilizers. Federal law (in the US) now dictates that dental offices are required to follow the guidelines set up by the American Dental Association (ADA) and CDC. Concern still surrounds the fact that if BIs are placed with a small load, against the peripheral wall of the machine, or are run in an empty sterilizer, the spore test may provide inaccurate information regarding levels of sterilization. The recommended methodology of BI use includes placing the test material "well inside" an instrument pack located near the centre of the largest load, closer to the front of the sterilizer or wherever heat circulation and penetration may be most limited. Manufacturers can provide sterilizer-specific information on the optimal location of BI packs.

The use of chemical indicators is also recommended by the ADA and CDC. These are less reliable and should not be used in isolation of other BIs. They best indicate flagrant sterilization failures, on a daily basis.

The importance of instrument cleaning is reinforced. Thirty years of documentation support that debris coated instruments provide a barrier, and protect spores, from adequate sterilization temperatures. Blood also provides refuge for some blood-borne pathogens (streptococci/staphylococci that are responsible for toxic shock syndrome and infectious respiratory tract disease) as well as hepatitis B virus. Some may survive for several days on dry surfaces. HIV will not presumably survive instrument cleaning. Because instrument cleaning provides some compensation for undiscovered sterilization failures, the authors identify its importance as critical.

Ultrasonic cleaning is described as "crucial" to sterilization success. OSHA requirements identify this measure as a real protection for personnel handling instruments with attending bloodborne pathogens.

Parenteral exposure is minimized "when cleaning sharp (and especially double-ended) instruments that easily puncture heavy gloves when batches are scrubbed by hand". The authors cite research supporting the increased efficacy of ultrasonic cleaning compared with hand-scrubbing of the instruments and reinforce again the protection against puncture injuries. Some waxes and cements may require solvents prior to ultrasonic use as they are particularly adherent and may not come off with ultrasonic use alone. The correct steps for cleaning/sterilizing are outlined as follows:

- Rinse/soak instruments to prevent the drying on of debris.
- Ultrasonically clean instruments.
- Rinse again.
- Inspect the instruments for debris.
- Treat carbon steel instruments with a rust-preventive agent if necessary.
- If, after careful scrutiny debris remains, instruments may be scrubbed (one-by-one) with a brush that has an elongated handle.
- Date instrument packages when performing weekly BI and daily chemical indicators to later indicate length of storage.
- Place the instrument packages to avoid hindering heat circulation ("load narrow packs in crosswise layers, keeping parallel edges from touching, to permit air flow). Spacer may be required.
- Check the chemical indicator in minimally one package to uncover failure.
- Document monitoring procedures.

The final rinsing step is highlighted again. The authors became concerned when reading a manufacturers instructions recommending that the ultrasonic solution not be rinsed following cleaning because of the rust-inhibiting quality of the chemical. Fears surrounded the fact that debris and microorganisms may be left behind on the instruments. This prompted their research into the importance of final rinsing.

The authors used instruments soaked in sheep's blood and dried. Four sets of instruments were treated in various ways: 1) no treatment, control, 2) rinsed, drained and air-dried, 3) sonicated, drained and air-dried, and 4) sonicated, rinsed drained and air-dried. The second evaluation method coated precleaned slides in sheep's blood, ultrasonically cleaned them and stained them with hematoxylin and eosin. Using several methods of treating the slides, they were then examined at X1000. The third evaluation considered the instruments were contaminated with blood, air dried and ultrasonically cleaned for

Critical Steps in Instrument Cleaning...(continued on page 37)

Happy New Year one and all!!! I'd love to know how many North American homes got new modems from Santa this year, or perhaps an E-mail account. Nevertheless I trust your Christmas Season was filled with fun, food (not too much), family, and the warmth of friendships both new and old.

Last issue I sent out a cry for assistance for a colleague who was looking for CE courses online. At this time I would like to thank everyone who mailed me with their findings. After taking some time to check out the different web sites I have determined that the Proctor & Gamble Dental Resource Net from the University of Louisville School of Dentistry have the most accessible program to date where "courses are evaluated and updated on an ongoing basis." This Virtual Classroom is broken down into categories for the Dental Assistant, Dental Hygienist, Dentist, and Office Manager but all who wish to participate in this **FREE** service must first subscribe, using name and a secret password, before access to the CE courses is given. Each course has its designated CE hours and requires a post-test. After successful completion of the test you are free to print a certificate of completion to send your local Continuing Dental Education Committee. Pre-approval of credits is never given, however, courses with mandatory post-course testing is recognized in Category 2 (Non-course scientific/clinical experiences) and Category 3 (Non-scientific/non-clinical experiences). Check out your specific provincial CE protocols, then send in your certificates and credit hours from these online CE courses. The address is:

<http://www.dentalcare.com>

Another site that is a must to visit is ADHA Online at:

<http://www.adha.org/>

This site targets both the public and the practicing RDH with interactive and up-to-date information packaged just right. Here you will find a consumer information center, career information portfolio, media file, kid's stuff, RDH resources, publications, and the **BLIP** (Brief Looks Interesting Phenomena) which is an online newsletter covering health news, a user feedback section and more... I must confess I've been having my reservations about these "kids" sites so I put this one to the test. Not informing my ten-year-old daughter of its dental nature I got her to surf the site. She actually enjoyed the interactive games and learned a few things along the way. I must admit what she enjoyed the most was sending away for the free toothbrush which she received I might add. I on the other hand took some extra time to check out the "Media File" and found some wonderful fact sheets which I in turn used in an article I wrote for a local newspaper during National Dental Hygiene Month. As long as credit is given to the ADHA when reproducing any of the information off the Net they are pleased for RDH's to use these fact sheets; after all the whole purpose of the "Media File" is to get the information "out there" so the public will become more aware of the role of the Dental Hygienist within the Health Care Community.

Until next time. Keep those cards and letters coming!!!!

E-mail me at: rwolf@atcon.com

31

Perio REPORTS

Bimonthly publication designed for dentists and dental hygienists concerned about their patient's periodontal health. Each issue summarizes periodontal research of specific interest to clinicians. Easy to read format keeps you up to date on the latest research findings.

Journals reviewed for **Perio REPORTS** include:

Journal of Periodontology
Journal of Clinical Periodontology
Journal of Periodontal Research
Journal of Dental Research
Periodontal Abstracts
Quintessence International
JADA, JADHA

☐ Please send sample issue for my review

☐ \$48 one-year ☐ \$84 two-year

Name _____

Address _____

City _____ Prov. _____ Postal Code _____

Mail to:

PerioREPORTS, P.O. Box 52090
311 - 16th Ave. NE, Calgary, Alberta T2E 8K9

CONTINUING EDUCATION CALENDAR

APRIL 4, 1998

GREETING THE NEW PERSON, DEFENSIVE CHARTING AND WHY PEOPLE COME BACK!

Dr. Bud Sipko and Karin Sipko, R.D.H.

Sponsored by the Kootenay Dental Hygiene Society, Nelson, BC

Nancy (250) 352-5614 or
Brigitte (250) 352-6969

ONTARIO DENTAL HYGIENE ORTHODONTIC STUDY CLUB

Full-day Orthodontic Seminar. Topics of the Seminar will include:

"Potpourri of Orthodontics" by Dr. Parker
"The 3 E's of Orthodontics" by Dr. McSweeney
"Oral Surgery in Orthodontics" by Dr. Zeit
"About Face"

The Seminar will take place at:

*The Prince Hotel, 900 York Mills Road
Toronto, Ontario*

Members \$40 Non-Members \$40

After February 28, 1998

Members \$45 Non-Members \$65

..... (416) 266-5711

Pill Not Puffer — First New Class of Asthma Drugs in Twenty Years

The Health Protection Branch has approved ACCOLATE™ (zafirlukast), an oral medication available by prescription, for the treatment of asthma in patients 12 years and older.

ACCOLATE has undergone extensive testing in numerous clinical trials involving over 4,000 patients worldwide. It is estimated that over 700,000 patients in the United States have been treated with ACCOLATE since it was launched there in November 1996.

Asthma symptoms can include wheezing, coughing, a feeling of pressure in the chest and difficulty in breathing. In some patients, symptoms may be debilitating or even life threatening. These symptoms can occur at any time, day or night.

Though not a cure for asthma, ACCOLATE, as preventative therapy, may help asthma sufferers control their disease. ACCOLATE is not a rescue medication and should not be used on an as needed basis to treat acute episodes of asthma. Prescribing information lists the most frequently occurring adverse event in trials with ACCOLATE to be headache, which was mild and transient.

Discovered and marketed by Zeneca Pharmaceuticals, ACCOLATE is an oral medication administered as one 20 milligram tablet, taken twice daily which works out to about \$1.55 per day of treatment.

32

3M Introduces Tie-on Masks with Anti-fog Feature

3M Canada Company recently introduced the fluid-resistant 3M 1828 Anti-fog Tie-on Surgical Mask and the 3M 1828F5 Anti-fog Tie-on Surgical Mask with Face Shield which reduce exposure to splashes and spatters of potentially infectious materials.

The mask style preferred by medical professionals, anti-fog masks help reduce fogging caused by exhaled breath. The new 3M Anti-fog Tie-on Mask features a plastic film strip on the inside and outside top edge of the mask designed to reduce fogging on a face shield or eyeglasses.

The face shield does more than provide a protective see-through barrier. It can also help improve the visual clarity and comfort of health care professionals by reducing reflections better than uncoated shields.

For more information on the new fluid-resistant 3M 1828 Anti-fog Tie-on Surgical Mask and the 3M 1828F5 Anti-fog Tie-on Surgical Mask with Face Shield, call the 3M Health Care Customer Helpline at 1-800-668-9295.

Kodak Provides Alternatives

Updated and expanded literature from Kodak thoroughly presents the best techniques to ensure optimal results from KODAK XOMAT 2 Dental Duplicating Film.

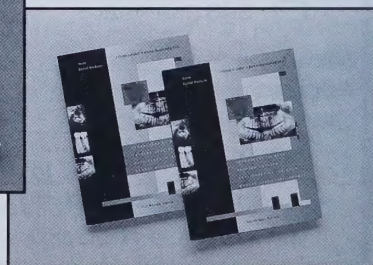
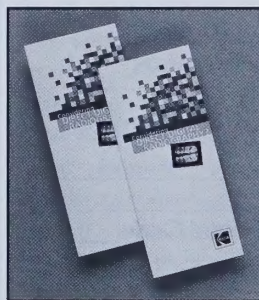
The full-color reference guide has new information on how to determine proper film positioning, lighting and exposure and describes the benefits of replenishing chemistry regularly. Easy-to-follow diagrams accompany the text. A troubleshooting section has also been added, providing helpful answers to frequently asked questions.

Also available from Kodak is new literature which presents important issues to consider while evaluating direct digital radiography systems. The brochure, entitled *Considering Direct Digital Radiography?* introduces discussion points such as diagnostic quality, radiation and integration in relation to current digital radiograph technology and the path ahead.

The full-color brochure presents benefits of digital radiography and poses important questions to ask during the evaluation process for

new digital technology. Issues covered include upfront investment, training and support, file storage, access and technology obsolescence.

To request literature, call Kodak's Dental Products group in Canada at 1-800-GO KODAK (465-6325), or visit Kodak's World Wide Web site at <http://www.kodak.com/go/dental>



OSHA Memorandum Expands Disinfectant Regulations

HEPATITIS B AND HIV THE NEW BENCHMARKS

The Occupational Safety and Health Administration (OSHA) has expanded the standard for disinfectants — used in clinical settings.

Cetylite Industries, Pennsauken New Jersey, has brought to market the first EPA-approved, broad-spectrum disinfectant proven effective against the hepatitis B virus (HBV).

The product, Cetycide II, has tested effective against HBV in 10 minutes (California EPA requires 15 minutes). In addition to HBV and HIV, Cetycide II lists 51 other pathogenic micro-organisms it has been proven to kill on application.

The introduction of Cetycide II means hard surface areas may now be cleaned with a safe, effective disinfectant that is pleasant to use. Lightly scented with natural citrus essence, Cetycide II is sold as a concentrate. Each 32-ounce bottle yields 16 gallons of use solution.

The product may be used directly on work surfaces or as a pre-cleaner for instruments requiring sterilization.

Appropriate settings for Cetycide II include: dental operatories, hospital operating rooms, laboratories, patient care rooms, medical and dental offices and ancillary health care delivery sites.

Cetycide II is available exclusively through dental and medical supply distributors. Full product information is available on request from Cetylite Industries at 1-800-257-7740.



33

Hu-Friedy Ultrasonic Inserts

Hu-Friedy's has a new line of ultrasonic inserts available in five different styles — Flow Through, Classic P-Style, Slim P-Style, Furcation, and the patent pending Slim Flow™, with a total of 14 different tip designs. Hu-Friedy's ultrasonic inserts offer

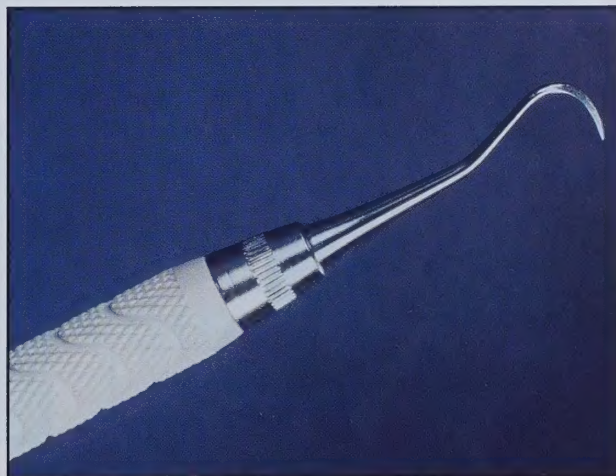
improved water delivery to the tip with a beveled nozzle which follows the contour of the ultrasonic tip. Lightweight, tactile sensitive resin handles are color-coded for instant tip identification.

Hu-Friedy Introduces ADVANTOUCH™

Hu-Friedy's new Advantouch handle, with a large diameter and optimum weight, gives dental professionals an advantage by providing a comfortable grasp during scaling procedures. Research suggests that using a large diameter, properly weighted handle may help reduce some of the symptoms of Carpal Tunnel Syndrome.

The Advantouch handle is manufactured from a unique material which provides magnified tactile sensitivity. The handle also features a textured wave groove for a secure grasp and rotational control. A gradual taper near the tip eliminates pressure points and an extra texture ring gives additional control and sensitivity.

Hu-Friedy's most popular instrument designs are available with the new handle and a mirror handle is offered as well, with more instrument designs being added in the future. Advantouch is the latest handle choice from Hu-Friedy in addition to the #2 octagonal and #4 round stainless steel handles.



For more information, call 1-800-HU-FRIEDY (1-800-483-7433).



CDHA NATIONAL Conference 1998

FRIDAY, JUNE 19

PRE-CONFERENCE SESSIONS

Legislation Workshop. Hosted by the Nova Scotia Dental Hygienists Association

CONFERENCE

1:00-1:15 Opening Ceremonies
A Royal Welcome to Prince Edward Island

1:15-1:45 Introductory Address
"Prince Edward Island: The Birthplace of Canada and Anne" by Dr. Epperley, President of Prince Edward Island University

2:00-4:00 Panel Presentations and Discussion:
Setting the Interdisciplinary Stage "Interdisciplinary Approaches to Teaching, Research, and Service Through a Collaborative Model". Working in teams requires collaboration and the development of skills at working in groups. A panel chaired by Dr. L. Kraemer will address key questions and themes: What is interdisciplinary? What is collaboration? How can there be collaboration in research between practitioners and faculty? How can there be collaboration in education and service delivery? What are the commonalities? How does a model help us understand? What are some real examples of dental hygienists working in interdisciplinary teams?

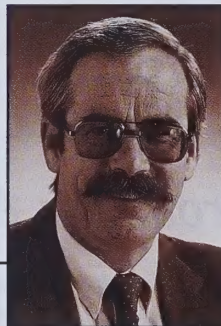
**Preliminary
Program**

PANELISTS DAY SESSIONS & SPEAKERS



LINDA KRAEMER, PH.D.
(Panel Chair)

Senior Associate Dean,
College of Health Professions,
Thomas Jefferson University,
Philadelphia, U.S.A.



KEVIN LYONS, PH.D.

Director, Center for
Collaborative Research,
Thomas Jefferson University
Philadelphia, U.S.A.



MAXINE BOROWKO, RDH

Fraser Valley and Simon Fraser
Health Regions
Abbotsford, B.C.



SANDRA COBBAN, RDH

Program Development Consultant,
Aspen Regional Health Authority
Morinville, Alberta

**President's
Reception**



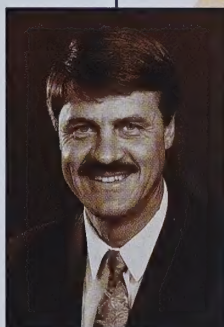
**SANDRA COBBAN, DIP.D.H. and
JOANNE CLOVIS, DIP.D.H., B.ED., M.Sc.**
"Linking Private Practice with the Community
in Interdisciplinary Collaboration"



*Registration forms
for CDHA's 1998
Conference will be
distributed with
the March/April
issue of Probe.*



**MARIA PERNO
MCKENZIE, RDH, MS**
President, American
Dental Hygienists
Association
"Women's Oral Health
Issues" and "Women,
Politics, and Cancer:
Who is in Charge?"



**HARDY LIMEBACK,
B.Sc., DDS, PH.D.**
Professor, University of Toronto
Faculty of Dentistry
"Fluoride — The Good, The Bad,
and The Ugly" and "The Dental
Hygienist's Answers to Questions
About Toothpastes, Mouthwashes,
and Whiteners"



IN ADDITION:

- COMMUNITY HEALTH CONNECTIONS
- CORPORATE SPEAKERS
- MEETING OF THE DENTAL HYGIENE EDUCATORS CANADA (DHEC)
- FREE PAPERS: SATURDAY AFTERNOON AND SUNDAY MORNING
- GUEST SPEAKER "THE BUSINESS OF DENTAL HYGIENE"
- STILL TO COME... AN INNOVATIVE, INTERACTIVE TOUCH-TECHNOLOGY SESSION ON PERIODONTICS



CDHA NATIONAL Conference



Share the strength of the world's largest mutual fund company

Over 12 million investors like you share the strength of Fidelity Investments. In fact, we've been helping investors achieve their goals for over 50 years. As the recommended financial advisor to the **CDHA**, Midland Walwyn Capital Inc. draws upon Fidelity's global presence and full range of mutual funds to help meet all your investment needs. Call 1 800 563-6623 for details on how this partnership can benefit you.



MIDLAND
WALWYN
BLUE CHIP THINKING™



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION
L'ASSOCIATION CANADIENNE
DES HYGIENISTES DENTAIRES

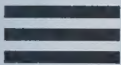
™BLUE CHIP THINKING is a trademark of Midland Walwyn Capital Inc. Midland Walwyn is a member of the Canadian Investor Protection Fund. Read the important information in a fund's prospectus before investing.



The World's Largest Mutual Fund Company

MAIL  POSTAGE

Canada Post Corporation
Société canadienne des postes
Postage paid Port payé
if mailed in Canada si posté au Canada
Business Reply Réponse d'affaires
0103364699 01



0103364699-M5J2W5-BR01

ATT: AFFINITY SERVICES
MIDLAND WALWYN
PO BOX 19009 STN BRM B
TORONTO ON M7Y 3M9

Retire from work, not life.

Name _____

Address _____

City _____ Prov. _____

Postal Code _____

Phone (Res.) () _____
(Bus.) () _____

I am currently a Midland Walwyn
client: ☐ Yes ☐ No

My Financial Advisor's name is: _____

Fax: (416) 368-6011

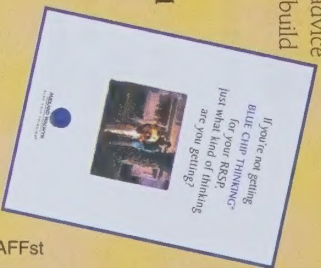
e-mail CDHA@midwal.ca



As CDHA's recommended financial advisor, Midland Walwyn provides uniquely tailored RRSP solutions to meet the needs of CDHA members. If you need a Self Directed RRSP, we offer a 50% savings on the annual administration fees to you, your staff and family members, or you can choose a no fee RRSP. Both provide you with the advice and flexibility you need to build financial independence.

**To receive your complete
RRSP information kit, mail
or fax this postage paid
reply card or call us at:**

1 800 563-6623



® BLUE CHIP THINKING is a Registered trademark of Midland Walwyn Capital Inc. Midland Walwyn is a member - CIPF

Estate Planning: Maximizing Savings and Minimizing Taxes

Estate planning has been receiving a good deal of press lately because changes in taxation and family law, and the rising costs of settling an estate have made careful planning more essential than ever. While there is a natural reluctance to talk about passing on wealth, you will lose control of the life-long accumulation of your assets if you don't spend the time formally planning their disposition.

Estate planning is long range personal planning aimed at ensuring that your assets and earnings do you the most good while you are alive, and your heirs the most good after you die. The three fundamental objectives behind the creation of a will are to ensure you have adequate funds to cover estate costs, to conserve your wealth by sheltering as much money from the taxation as possible, and to guarantee fair distribution.

While estate planning tends to focus on death, you should prepare throughout your life by attempting to maximize savings and minimize income tax. It is vital to take the time to prepare a will. Many people do not realize that if they should die "intestate," provincial laws will dictate the timing and allocation of asset disposition.

It is difficult to pass wealth on effectively without a will, and for this reason, it is not only important to draft one, but also to review it every few years. If you don't take the time to organize your estate carefully, your plans are not likely to be fulfilled. While no one likes to talk about planning for death, your wishes can be filled with as little aggravation to you as possible if you take a few simple steps. Seek qualified advice and take action today.

For further information call you local Midland Walwyn Financial Advisor, Midland Walwyn Capital Inc.

37

CRITICAL STEPS IN INSTRUMENT CLEANING...

(continued from page 30)

10 minutes. A Chemstrip (Boehringer Mannheim) the instruments were tested for remaining occult blood on the instruments both before and after final rinsing.

The three evaluations determined that while debris remained after rinsing, the instruments that did not receive the final rinse evidenced the greatest amount of remaining debris. Detectable blood debris in the ultrasonic solution increased with each consecutive load. The authors emphasize that what was of real significance was the fact that with a comprehensive rinsing, there was a "five-fold or greater reduction of detectable blood cell debris that would have dried on unrinsed instruments". Although blood was never eliminated, it was reduced significantly.

Some author suggestions that bear consideration:

- Don't use a disinfectant solution in the ultrasonic tank without manufacturers guidance as it may corrode the tank producing holes.
- Consider the number of times a load is run through the ultrasonic cleaner, as the bacterial load increases with each consecutive use.
- Rinse instruments thoroughly after ultrasonic use.
- Pre-soaking instruments decreases the amount of debris.
- If rust protection is needed, use only fresh solutions applied to rinsed instruments.

Classified Ad Rates

Fifty (50) words or less, \$26.75 (GST included).

Additional words: \$0.54 per word (GST included).

Closing date for the receipt of copy is approximately one month prior to publication date:

DEADLINE	ISSUE	CIRCULATION DATE
December 10	January/February	January 15
February 10	March/April	March 15
April 10	May/June	May 15
June 10	July/August	July 15
August 10	September/October	September 15
October 10	November/December	November 15

Advertisers' Index

BUTLER	4
CDHIP	17
DENTSPLY	IFC
JOHNSON & JOHNSON	IBC
M-DEC	15
MIDLAND-WALWYN	36
PERIO REPORTS	31
WARNER LAMBERT	OBC

Beautiful Vancouver, British Columbia

Busy practice in a Vancouver suburb seeks a full-time hygienist to join our team.

Phone Dr. Joban at (604) 526-8006 or fax resume to (604) 526-1099.

Ready for a Change?

Barco Uniforms are now available here in Canada. Comfortable Casual California styling in visa fabric for easy care competitive pricing in Canadian funds. Call between 10:00 AM and 5:00 PM Eastern time Monday through Friday. Fax anytime.

Call or fax today for your free catalogue at 1-888-820-0031.

Revelstoke, British Columbia

We are seeking an experienced hygienist for a maternity leave from March to August 1998. This is a full-time position in a busy custom built office; working with two dentists and another full-time hygienist. Please respond by calling Ann at (H) 250-837-3359, (B) 250-837-5149 or by Fax 250-837-5131.

Hope, British Columbia

We are currently seeking a part-time hygienist to join our friendly, professional staff. Modern facilities and excellent working hours (no weekends or evenings).

It is our intent to eventually have this position lead into full-time.

If a five minute drive to work, affordable housing and living in the most beautiful setting in Canada appeals to you this position is perfect. Shared commuting from Chilliwack also available.

Excellent remuneration according to experience.

Call: Dr. Martin Drobis
(604) 869-5412
(604) 869-3533 evenings

Beautiful Gold River, British Columbia

Enjoy scenic mountains, ample hiking and fishing in a pleasant Island town located one hour from Campbell River. Well-established family practice is seeking a full-time hygienist. Please call (250) 283-7422.

Chilliwack, British Columbia

Permanent part-time hygienist required for April 1st, 1998 start date. Contact Dr. E.J. Hutton at (604) 792-2216 for details. Join our busy hygiene program!

MEMBERSHIP DRAW

Congratulations to Laura Fletcher! Ms. Fletcher of Kelowna, B.C., was the winner of the CDHA Free Membership Draw. Applications received prior to November 30 (the deadline was extended due to the postal strike) were eligible to receive a refund of \$100 (the CDHA portion of their membership fee).

The application deadline for the following posting has been changed to Monday, February 16 due to the recent postal strike.

Canadian Dental Hygienists Association

A national non-profit organization committed to advancing the dental hygiene profession, providing member services and contributing to the improvement of public health, has an immediate requirement for a:

MANAGER, PROFESSIONAL DEVELOPMENT

(full-time — 37.5 hours per week)
(starting salary range — \$33,000-\$38,000)

Reporting to the Executive Director, you will be responsible for developing and implementing professional development programs, initiatives, strategies and standards relating to dental hygiene education, research, quality assurance and accreditation. You shall act as the Association's scientific authority in matters relating to the dental hygiene profession, including fulfilling the role of Scientific Editor for the Journal.

Qualifications: Diploma/degree in Dental Hygiene, 5 years related experience, knowledge of program management and administration, the dental hygiene profession and non-profit/volunteer organizations, as well as academic, legislative or government environments. Excellent oral and written communication skills, the ability to work with representatives from various organizations, computer skills, initiative, flexibility, diplomacy, superior interpersonal, organizational and coordination skills are essential. Previous experience in developing and managing grants and bilingualism would be assets.

We offer a comprehensive benefit package and a smoke-free environment. Please send resumes by Monday, February 16, 1998 to: **Human Resources Consultant, Canadian Dental Hygienists Association, 96 Centrepointhe Drive, Nepean, Ontario K2G 6B1**

* Only those candidates considered for an interview shall be contacted. Interviews to be conducted in March 1998, with an expectation of filling the position by the Spring of 1998.

ANOTHER INNOVATION FROM *Johnson & Johnson*



How people feel about flossing depends on the floss.

Getting patients to floss daily is difficult. To meet the challenge, REACH® Oral Care from JOHNSON & JOHNSON offers the most types and flavours of floss, helping to satisfy virtually every patient's specific needs and increase their compliance.

◀ GENTLE GUM CARE

is for patients with sensitive gingival tissues. Its patented woven construction expands to trap and remove plaque particles, yet is gentle on gingival tissue and fingers, too. In

a product test, two-thirds of infrequent flossers were converted to frequent flossers after trying REACH® GENTLE GUM CARE. Patented MICRODENT® delivers a burst of mint taste for a clean, fresh feeling.

REACH® FLOSS FOR KIDS ▶

is a gentle floss with a grape flavour kids will love. It's ideal for a child's changing dentition, and the fun flavour helps establish a life-long, healthy habit of flossing.

REACH® EASY SLIDE™ ▶

is ideal for patients with tightly-spaced teeth or who have had extensive restoration. Specially designed to slide more easily between teeth with a broad cleaning surface, NEW REACH® EASY SLIDE™ can help improve compliance.

In product testing patients preferred REACH® EASY SLIDE™ because it didn't shred, it was gentle on gingival tissue and it slid easily between teeth. REACH® EASY SLIDE™ Dental Floss is made from expanded polytetrafluoroethylene (e-PTFE), the same material that is used to make Teflon®†.



For more product information and a sample: 1-888-YU-FLOSS (1-888-983-5677).

To place an order call your JOHNSON & JOHNSON Authorized Dental Distributor today.



"Recognized
by the
Canadian
Dental
Association"



Johnson & Johnson INC.

PROFESSIONAL SERVICES DEPT.
QUALITY, INNOVATION AND TRUST IN ORAL CARE

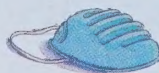
WIDELY AVAILABLE Like other Johnson & Johnson products, patients will be able to find REACH® EASY SLIDE™ and REACH® GENTLE GUM CARE in a store near them.

™/® Trademarks of JOHNSON & JOHNSON used under license. © JOHNSON & JOHNSON Inc. 1997.
†Teflon® is a registered trademark of E. I. Du Pont De Nemours and Company.

WHILE YOU CAN'T BE THERE EVERY DAY TO FIGHT GINGIVITIS, LISTERINE CAN.



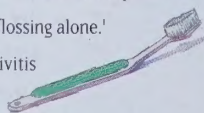
It's no secret that many people have trouble practicing proper dental care between check-ups. This of course,



increases the chance

of gingivitis. But now with Listerine,* you can give your patients some additional help in the fight against gum disease. The fact is, Listerine has been proven to reduce the development of gingivitis† by almost 36% over brushing and flossing alone.‡

And while Listerine controls gingivitis as effectively as chlorhexidine, it doesn't stain or discolour teeth.‡ Which means Listerine can become



part of your patient's everyday dental care routine between visits. It simply requires a 30 second rinse, two times a day. It's fast, easy and

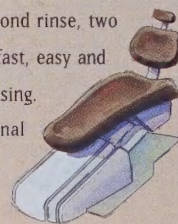
works synergistically with brushing and flossing.

So give your patients some additional help in the day-to-day fight against gingivitis.

Give them Listerine.

Ask your dental distributor for information on 1.5L with free pump for operatory use.

For more information, please call 1-800-683-1650.



† "Listerine helps reduce gingivitis (minor inflammation of the gums caused by plaque above the gumline) when used in a conscientiously applied program of oral hygiene and dental care." CANADIAN DENTAL ASSOCIATION †

LISTERINE ANTISEPTIC - ANTIPLAQUE ANTINGIVITIS - MOUTHWASH INDICATIONS: Helps reduce gingivitis (minor inflammation of the gums caused by plaque above the gumline) when used in a conscientiously applied program of oral hygiene and dental care. Kills the germs that cause bad breath, plaque, gingivitis and sore throats due to colds. **CAUTIONS:** Keep out of reach of children. Do not swallow. Not to be used by children under 12 years of age. In case of accidental ingestion, contact a Poison Control Centre or doctor immediately. **DOSAGE:** Rinse full strength with 20 mL for 30 seconds twice a day. **MEDICINAL INGREDIENTS:** Eucalyptol 0.091% w/v, Thymol 0.063% w/v, Menthol 0.042% w/v. **NON-MEDICINAL INGREDIENT:** Alcohol. **NOTE:** Cold temperatures may cloud this product, its efficacy will not be affected. **SUPPLIED:** Original Listerine: Clear, amber liquid available in bottles of 250, 500, 750, and 1,000 mL. Cool Mint Listerine: Clear, blue, cool mint flavoured liquid available in bottles of 250, 500, 750, and 1,000 mL. Fresh Burst Listerine: Clear, green, mint flavoured liquid available in bottles of 250, 500, 750, and 1,000 mL.

‡ Gingivitis was evaluated using the Modified Gingival Index.

*TM Warner-Lambert Company Warner-Wellcome Inc. use Scarborough, Ontario M1L 2N3.

1. Overholser CD et al. Comparative effects of two chemotherapeutic mouthrinses on the development of supragingival dental plaque and gingivitis. *J Clin Periodontol* 1990;17:575-579.

2. Data on file, 1995.

PAAB

LISTERINE FIGHTS GINGIVITIS WITHOUT STAINING



The Canadian Dental Hygienists Association

PROBE

JOURNAL

de l'Association canadienne des hygiénistes dentaires

DENTAL LIBRARY
UNIVERSITY OF TORONTO
124 EDWARD ST.
TORONTO M5G 1G6

March/April 1998 vol. 32 no. 2

Dent

Oral Management of the Cancer Patient — Part II Chemotherapy

Bulimia Nervosa: Dental Perspectives

Articulation Between Diploma and Baccalaureate Programs



TAKE OFF WITH

NEW!

Glitter!

Take Off Stains Faster!

Glitter™ is smooth, pliable and splatter-free to clean teeth quickly. Available in multiple grits and four patient pleasing flavors - mint, cherry, strawberry and bubblegum.

Take Off 50% Savings!

This breakthrough in technology enables **Glitter** to be manufactured at a lower cost to you!

Take Off To Walt DisneyWorld!

Each box of **Glitter** contains a coupon which will be entered into a drawing to win a trip for two to Walt DisneyWorld Resort in Orlando, Florida. A new winner will be drawn every 60 days. So enter with every package you purchase!

¹ Pre-market survey.

Offer valid in North America only 1/1/96 through 1/31/97.
™Glitter is a trademark of Medical Product Laboratories.

PROPHY PASTE

*4 out of 5 hygienists and doctors prefer **Glitter** to clean teeth faster, without splatter - and achieve the ultimate level of lustre!
You will too!*

BUY ONE GET ONE!

Receive a bonus double

package containing

420 cups - only \$55.10.

(That's less than \$28.00 per box)

Available through an authorized dealer; satisfaction guaranteed.

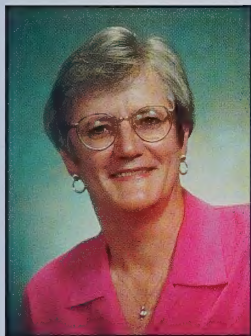


The Dental Hygienist and the Paradigm Shift

APR 15 1999

by Pat Spencer, RDH, BA

What is a paradigm shift anyway? Thomas Kuhn first wrote about paradigms in his book, The Structure of Scientific Revolutions. He was writing about researchers but his theories are being used to explain changes in government, industry and even healthcare.



Pat Spencer, RDH, BA

Paradigms could be described as a set of rules or organizational realities such as beliefs, values, methods and attitudes that provide rules and standards governing the thoughts, actions and practices of a social group. The following example is the best way to make this clear.

In 1968, Swiss watches were known worldwide as the best watches. The Swiss had more than 65 percent of the unit sales in the world and more than 80 percent of the profit. They

had constantly improved their watches, inventing the second and the minute hand. They improved the manufacture of bearings and mainsprings. BUT by 1980, their market share had collapsed from 65 percent to less than 10 percent. Between 1979 and 1981, 50,000 of the 62,000 watchmakers had lost their jobs!¹ What had happened?

At the height of their success, the idea of the first electronic watch was presented at a convention but the Swiss watchmakers declined to consider it. They could not see the possibilities in another way of making watches. Japanese watchmakers like Seiko, took the opportunity and have captured the world market with their quartz watches. There was a change in the rules of watchmaking. This is known as a "paradigm shift".

Joel A. Baker, in his book, *PARADIGMS*, defines a paradigm as a set of rules and regulations (*written or unwritten*) that does two things: (1) **it establishes or defines boundaries**; and (2) **it tells you how to behave inside the boundaries in order to be successful**. For example, in the average dental practice, there are paradigms that define how the client is to be received and treated. The office paradigm defines the hours available, the time required for each part of the care, the providers of care and the expectations of payment. Tensions rise when any party does not conform to this paradigm. There can be a difference between offices but each office believes that its paradigm is correct.

We see the world through our paradigms which are rules or beliefs about our behaviour. We filter out anything that does not fit our paradigm. "One suspect(s) that something like a paradigm is prerequisite to perception itself."² On a boat ride, the artistic passenger would admire the varying shades of blue in the sky and water, the light hitting the water and creating shadows. However, the captain would see the depth of the water, the wind's effects on the waves and the distance to port.

Watch for people messing with the rules. This is the earliest sign of significant change. A paradigm shift is a change to a new game or new set of rules.

"New paradigms put everyone practicing the old paradigm at risk. The higher one's position, the greater the risk. The better we are at our paradigm, the more we have invested in it, the more we have to lose by changing paradigms."³

We are undergoing a major shift in healthcare. Thousands of nurses have lost their jobs. Rules about care of the sick are changing. Alternate methods of healthcare are taking over.

A paradigm shift goes through three stages:

NORMALCY — things work as we expect.

ANOMALIES — things do not work as expected.

REPLACEMENT — rules or beliefs are changed.

"Sometimes an anomaly will clearly call into question explicit and fundamental generalizations of the paradigm."⁴ The present system of dental hygiene care apparently works very well. Dental professionals set the rules for care, time or place of service, the providers, and the system of payment. BUT there are anomalies. The present paradigm does not allow for those unable to conform to these rules. These might be the poor, the fearful, the homebound, the elderly and those in remote locations. Who should define the healthcare delivery system? The health professional or the consumer?

Paradigm shifts are going on in all fields all of the time creating turbulence during the change. Past success guarantees nothing. Joel Arthur Barker cautions against being locked into one way of doing things or "paradigm paralysis". Instead he suggests each of us become "paradigm pliant"⁵ as the best strategy in turbulent times. This means a purposeful seeking of a new way of doing things. He suggest we ask ourselves the Paradigm Shift Question, "What do I believe is *impossible* to do in my field, but, if it could be done, would *fundamentally* change my business?" (*my emphasis*)

The paradigm shifter is someone who is an "outsider." Barker classifies these as:

- New graduates who haven't been conditioned into the established routine.
- An older person shifting fields. With all the changes in downsizing, this is a large group.

The Dental Hygienist and the Paradigm Shift... (cont'd on page 55)

Take **Act**ion against cavities.



INTRODUCING REACH[®] ACT[®] ANTI-CAVITY TREATMENT: CLINICALLY PROVEN TO FIGHT CAVITIES BETTER THAN BRUSHING ALONE.

- Patented exact dosage meter dispenses the correct amount of fluoride – more economical: no spilling, no waste
- Alcohol-free: safe for children and won't sting
- Three great flavours available

One more product you can safely recommend. From Johnson & Johnson, the name professionals have trusted for generations.

Johnson & Johnson INC.
PROFESSIONAL SERVICES DEPT.
 QUALITY, INNOVATION AND TRUST IN ORAL CARE

*Trademark of Johnson & Johnson used under license.
 © Johnson & Johnson 1998

"Recognized by
 the Canadian Dental
 Association"



43 GUEST EDITORIAL

The Dental Hygienist and the Paradigm Shift
by Pat Spencer, RDH, BA

47 PRESIDENT'S MESSAGE

Form Follows Function
By Judy Clarke, Dip.D.H.

48 NEWS

CONFERENCE INFORMATION

- 46 General Information
- 70 Call For Presentations/Displays
- 74 Registration Guidelines

53 PRACTICE PROFILE UPDATE

Lest We Forget
By Barbara (Crosson) Heisterman, RDH, E.D.H.

SELF-ASSESSMENT TEST/ EXAMEN AUTO-ÉVALUATION

- 56 Sample questions from the National Dental Hygiene Certification Examination.
- 72 Exemple de questions du Bureau national de la certification en hygiène dentaire.

CDHIP INSURANCE PLAN/ PAHDC PROGRAMME D'ASSURANCE

- 57 Are you self-employed?
- 73 Êtes-vous travailleur autonome?

FEATURE ARTICLES

- 58 Part II: Chemotherapy
Oral Management of the Cancer Patient
By Ruth Lunn, Dip.D.H.

FEATURE ARTICLES

- 66 Internet Usage by Dental Hygienists
By Penny Spacie, RDH
- 69 Articulation Between Diploma and Baccalaureate Programs Studied
By Karen Wolf, Dip.D.H.

71 ABSTRACT

Bulimia Nervosa: Dental Perspectives
Reviewed by Carol Barr Overholt, Dip.D.H.,
Contributing Editor

76 CASE STUDY

Removal of an Amalgam Tattoo
Utilizing an AlloDerm™ Material
By Leanne Carlson-Mann, Dip.D.T., Dip.D.H.,
Contributing Editor

INFORMATION

- 54 Continuing Education Calendar
- 75 New Products
- 77 Probing the Net
By Karen Wolfe, Dip.D.H.
- Advertisers' Index
- Probe Advertising Rates
- 78 Classifieds



The legendary beauty of Prince Edward Island awaits your arrival in June, 1998.



MANAGER, COMMUNICATIONS SERVICES: Angela J. Whelan, B.A.
EXECUTIVE DIRECTOR: C.M. Worobey, Dip.D.H.
EDITORIAL ADVISOR: K. Edwards, M.A.
CONTRIBUTORS
Carol Barr Overholt, Dip.D.H.
Leanne Carlson-Mann, Dip.D.T., Dip.D.H.
Karen Wolfe, Dip.D.H.
EDITORIAL BOARD
Laura MacDonald, Dip.D.H., B.Sc.D., M.Ed.
B. Fortune, Dip.D.H.
Jane Waites, Dip.D.H.
L. Guest, Dip.D.H., B.H.Ed.
R. Lunn, Dip.D.H.

DESIGN: Edels-Marcotte
Published six times a year by the Canadian Dental Hygienists Association, 96 Centrepointe Drive, Nepean, ON K2G 6B1
Tel (613) 224-5515

Canada Post Publications Mail Registration No. 5793
CANADIAN POSTMASTER: Notice of change of address and undeliverables should be sent to:
Canadian Dental Hygienists Association
96 Centrepointe Drive,
Nepean, ON K2G 6B1
Subscriptions \$69.55 (GST Included) in Canada, \$110.00 Cdn for US and \$115.00 Cdn elsewhere. Fifty cents per issue is allocated from membership fees for journal production. All statements are those of the authors and do not necessarily represent the CDHA, its Board, or its staff.
ADVERTISING AND SUBSCRIPTIONS:
Keith Health Care Communications
1382 Hurontario St.
Mississauga, ON L5G 3H4
(905) 278-6700
CDHA 1998
6176 CN ISSN 0 834-1494
GST Registration No. R106845233

CDHA CENTRAL OFFICE STAFF
Executive Director: Carol Matheson Worobey
Manager, Communications Services: Angela J. Whelan
Manager, Finance and Administration: Monique Belleau Rock
Member Services: Sandra Vanwart
Member Services Assistant: Sue Turcotte
Administrative Assistant: Shelly Rochon
Receptionist: Heather Brophy
All CDHA members are invited to call the CDHA's Member Line toll-free, with their questions/inquiries:
1-800-267-5235, Fax (613) 224-7283
Internet: <http://www.cdha.ca> E-mail: info@cdha.ca
We look forward to serving you.

The Canadian Dental Hygienists Association's Journal, *Probe*, is the official publication of the CDHA. The CDHA invites submissions of original research, discussion papers, and statements of opinions pertinent to the dental hygiene profession. All manuscripts are refereed anonymously. Contributions to *Probe* do not necessarily represent the views of the CDHA, nor can the CDHA guarantee the authenticity of the reported research. Copyright 1998. All materials subject to this copyright may be photocopied for the non-commercial purpose of scientific or educational advancement.



9th Annual Professional Conference

**GIVE YOU JUST ONE GOOD REASON TO ATTEND?
WE'LL GIVE YOU FIVE — AND MORE!**

- **HIGHLY EDUCATIONAL SCIENTIFIC SESSIONS**, with some of the most respected and knowledgeable professionals in our field. (See preliminary program insert for complete details of our speaker line-up)
- **GET THE CREDIT YOU DESERVE!** The CDHA 9th Annual Scientific Conference meets the "continuing education" requirements for conventions. Plan to meet with us in Charlottetown June 19-21, and take the credit for being with us! (Check with your provincial association for more information on how many credits are available to you for attending CDHA '98.)
- **ENHANCE YOUR PROFESSIONAL DEVELOPMENT** with the host of interdisciplinary material offered at CDHA '98.
- **THE BEST NETWORKING OPPORTUNITY AVAILABLE TO OUR PROFESSION!** CDHA '98 expects an attendance of over 500 professionals at its' 9th Annual Conference — a time to renew old acquaintances, and make new friends!
- **FUN, FUN, FUN! BRING THE WHOLE FAMILY!** When you arrive on our Island, you will soon discover the variety of activities and the splendid scenery that our province has to offer. Come and enjoy our magnificent sunsets, pearly white beaches, live theater, great golf and of course, the freshest seafood.
- **STAY WITH US AT PRINCE EDWARD ISLAND'S ONLY FOUR-DIAMOND HOTEL!** CP's Prince Edward Hotel is the home of CDHA '98, offering value and luxury in every way imaginable. CDHA Group Rate: \$140 single/ \$160 double occupancy. (See advertisement on page 69 for more details.)
- **THE THEME OF CDHA '98 INCORPORATES PEI'S NEWEST MARVEL "THE FIXED LINK"**

(THE CONFEDERATION BRIDGE), to the mainland, and our professions' continuous movement toward increasing our knowledge base in disciplines which impact on oral health. Don't miss viewing this spectacular nine-mile wonder!

The Local Organizing Committee members extend a warm welcome to all delegates to CDHA '98

Co-Chairpersons Audrey Newcombe &
Karen McQuigan

Scientific Joanne Clovis

Scientific Liason Joanne McQuarry

Treasurer Florence Wall

Social Maria McKenna

Registration Julie Muise

CDHA Rep Monica Larkin

Coordinator Shirley Verheyden

CDHA extends its' sincere thanks to the following organizations for supporting its' 9th Annual Professional Conference:

Ash Temple Limited
Block Drug Co. (Canada) Ltd.
Canadian Sugar Institute
Colgate
Connair
Dairy Farmers of Canada

Dentsply Canada Ltd.
Dependable Dynamic Services
F. Pigeon & Sons
Henry Schein Canada
Hu-Friedy Manufacturing Inc.
Midland Walwyn Capital Inc.
Oral-B Laboratories

Patterson Dental (Dentaire) Canada Inc.
Premier Dental (Canada)
Septodont Inc./Novoco
Sonicare (Optiva Corp)
Sunlife of Canada
Teledyne Water Pik Canada
Warner Lambert

Form Follows Function

By Judy Clarke, Dip.D.H.

We are all aware that the only constant in today's environment is change. Whereas our personal and professional lives used to be somewhat predictable and we had some control in how and when we wanted to incorporate change, now the opposite is more the norm. However, it is not all doom and gloom — change has a lot to do with defining and redefining things and the more education and knowledge we have, the better we accept change.

47

Change forces us to stop and reflect upon the direction our lives are taking and in doing so it actually provides an incredible opportunity for those who are ready to venture out and try something different. Like you, CDHA is also grappling with change and we have recognized that the time has come for us to analyse how we operate. More specifically, we need to determine if our current Board structure is working as efficiently and effectively as possible to meet our needs?

Prior to entertaining any changes, it is important to begin by evaluating where we have been. Back in 1990, the current Board was restructured into a working Council format. Past and present Directors can take pride in all the milestones and accomplishments they achieved over the past 7 years; however, will this current structure meet the present and future requirements: Our members, the provincial dental hygiene Associations and our Directors?

When answering this question, other issues must also be contemplated — are there other stakeholders with a vested interest in dental hygiene that we have not considered, do the volunteer Directors have the same amount of spare time to dedicate to CDHA (we are very cognizant that the nature of volunteer work is changing) and will we continue to have the resources to support a large working Board? These issues and more are what the CDHA Board faced when it gathered in Ottawa for its annual planning session in January.

Before the Board could address any proposed change in structure, it first needed to re-confirm "What is the function of CDHA?" It is far easier to develop a structure when you are clear about what you want to accomplish than trying to make your plans fit into a form that may be unworkable. Why does CDHA exist, what should guide our actions and what do we want to achieve over the next 3 years — these key elements of *mission, values and goals/vision* together form a core foundation from which structure should naturally evolve **FORM FOLLOWS FUNCTION**.

WHAT SPECIFICALLY ARE THESE KEY ELEMENTS AND HOW DO THEY RELATE TO CDHA?

An organization's mission statement is not a new concept. Since 1964, CDHA has had its own unique mission that has clearly described,

up to this point, our mandate. However, the time has come to revisit the statement to see if it accurately describes who we represent, what we do, how we function and do we operate in a way that is future focused while allowing for development, change and improvement.

Tied very closely to the implementation of the mission are key values. Essentially, these values are deeply held beliefs that when operationalized, advance the profession. As a small collection of statements of ideals, values describe how CDHA *should* be guided in achieving its mission. Generally held at highest possible level — that being "principle" — values are based on the fundamentals of what is ethical or moral. Examples of values can include excellence in service and equality. Guiding principles are grounded in what you believe to be right (above all rational thinking) and just as you would do personally, they are what an organization would refer to when justifying a decision, especially one that is surrounded in controversy.

The third key element in an organization's core foundation is its vision or goals. Closely tied to the mission and values, goals outline a preferred future and must be doable within a defined period of time. If there is any concern on the validity or applicability of a goal, it must be examined to see if it is reflected in the mission.

So, what did the Board accomplish during its planning session. Through the guidance of a facilitator, the Board succeeded in completing a tremendous amount of work in a very short period of time.

Form Follows Function... (continued on page 55)



Judy Clarke is a 1987 graduate of the University of Alberta Dental Hygiene Program. She has worked full-time in private practice over the past ten years and continues to do so in Edmonton, Alberta.

Highlights of CDHA January 1998 Board Meeting

CDHA Board Members Present an Exciting 1998 Year

The Canadian Dental Hygienists Association's (CDHA) Interim Board of Directors Planning Session took place in Ottawa from January 29 to February 1. The central theme of the meeting was to review the positioning of the National Association to assist in meeting the opportunities currently placed before the profession.

A welcoming note was given to three new Directors to the Board, Noel Selinger from the Saskatchewan Dental Hygienists Association (SDHA), Mary Pelletier from the New Brunswick Dental Hygienists Association (NBDHA), and Natasha Kravtsov from the Manitoba Dental Hygienists Association (MDHA). This year's meeting was introduced with a new format, a planning workshop, to allow the Board to work together for the entire weekend. The purpose of the workshop was to provide an opportunity for CDHA to do strategic planning for the Association over the next three years.

The workshop allowed Board Members to:

- Review CDHA's mission, vision and values.
- Identify strategic issues for the Association over the next three years and develop strategies for addressing them.
- Evaluate the current Board structure.

In reviewing CDHA's mission, vision and values, the planning committee members carefully restructured each statement to meet the current vision and need of the profession. The Board also identified three strategic issues as priorities for action over the next three years: Baccalaureate education (to meet the need for broader education), Access (to increase access to dental hygiene services), and Self-Regulation (to ensure all provinces in Canada are self-regulated). The board

also identified the need to develop a new structure for CDHA based on a policy governance model. The new structure developed by the participants would provide for a 16-member Board with broader representation for the profession.

After more than a weekends' worth of business planning, CDHA will be busy implementing these initiatives and strategies. CDHA will be providing additional information to its members as certain issues are expected to be implemented throughout 1998.



CDHA's Board of Directors and Executive Council members present during CDHA's January 1998 Planning Workshop.



CDHA's Planning Workshop Facilitator Dorothy Strachan of Strachan•Tomlinson, with CDHA President Judy Clarke.

CDHA's Dental Hygiene Initiatives Incentive Grant

Coral Grant, Oral Health Team Leader at the Chinook Health Region in southern Alberta, attended The 10th World Conference on Tobacco or Health in Beijing, China on August 25-28, 1997.

Coral's abstract for her poster presentation, "Awareness Initiatives in the Negative Effects of Smokeless Tobacco" was accepted by CDHA's Scientific Committee in June, 1997. The abstract outlined initiatives in the Chinook Health Region to increase the awareness of the hazards



Coral's poster presentation for "Awareness Initiatives in the Negative Effects of Smokeless Tobacco"

of smokeless tobacco. Surveys done in the region determined a high rate of use, specifically in junior and senior high school boys. A number of public awareness projects have been introduced, including television commercials, displays at rodeo events, and the implementation of a sticker/handout awareness campaign for local western wear retailers. Future plans for the Chinook Region include examining the psycho-social aspects of initiation and the use of the product as they develop education and cessation strategies.

CDHA was proud to assist Ms. Grant in her attendance at the Beijing conference through a small community incentive grant. The purpose of the grant was to encourage dental hygienists to present posters or papers at professional conferences of other health disciplines. The initiative was meant to encourage the sharing of professional knowledge and experience between the disciplines and hopefully lead to partnerships to benefit both professions and the public. It also increases the profile of dental hygienists outside their profession.

SDHA Appoints its First Dental Hygiene Registrar

Ms. Charlene Hamill has assumed the position of Registrar for the Saskatchewan Dental Hygienists Association (SDHA) last December 1997. Ms. Hamill is a 1970 graduate of the dental hygiene program at the University of Alberta. Over the past few years she has held various positions with SDHA, including President. In addition to her Registrar duties, she holds part-time positions as a clinical dental hygienist in a periodontal practice and as an Instructor at the Saskatchewan Institute of Applied Science and Technology (SIASST). Ms. Hamill is married and has two teenage children.



Charlene Hamill,
SDHA Registrar

You can reach SDHA's Registrar at:

Tel. (306) 721-7342 — that's 721-SDHA!

Toll Free 1-888-812-7342

Fax: (306) 721-1583

E-mail: sdha@sk.sympatico.ca

Postal Address:

SDHA, P.O. Box 32039

Regina, SK S4N 7L2

49

BC Government Passes New Adult Care Regulations

On October 1, 1997, the BC government passed changes to the Adult Care Regulation, placing requirements on facilities which are licensed by the government ("licensees") to provide certain oral health care services to their residents. The relevant portion of the regulations is reproduced below, for your information:

Oral Health

- 9.2** (1) For the purposes of this section, dental health care professional means a person who is a member of
- (A) the College of Dental Surgeons of British Columbia;
 - (B) the **College of Dental Hygienists of British Columbia**;
 - (C) the College of Denturists of British Columbia
- (2) A licensee must encourage a resident to obtain an examination by a dental health care professional at least once every year.
- (3) A licensee must ensure that a resident is assisted in
- (A) maintaining daily oral health;
 - (B) obtaining professional dental services as required, and

- (C) following a recommendation or order for dental treatment made by a dental health care professional providing care to the resident

Care Plans

- 9.3** (1) A licensee must ensure that staff develop and implement an individualized care plan for a resident who remains in an adult care facility for two or more weeks.
- (2) A care plan must include
- (B) a plan for the residents oral health care

This new regulation provides a mandate for improved oral health care for residents of licensed adult care facilities, and specifically includes dental hygienists as dental health care professionals. The result is that facilities will likely be open to hearing from hygienists about the services they can provide to help the facility meet the requirements of the regulation.

Thanks to all those dental health care professionals who worked so hard to make this regulation a reality!

Bonnie Craig Appointed Chair of the Allied Dental Education Programs Committee

The Commission on Dental Accreditation of Canada has appointed Ms. Bonnie Craig, CDHA's representative to the Commission, to the position of Chair of the Allied Dental Education Programs Committee (Committee 2) for a two year term beginning in 1998. Ms. Bonnie Craig, Assistant Professor, is the Director of The University of British Columbia's Dental Hygiene Degree Completion Program. The duties of the Committee is to review accreditation survey reports for educational programs in Dental Hygiene and Dental Assisting (Intra-oral) and make recommendations to the Commission on accreditation status to be awarded to each program.



Bonnie J. Craig,
Dip.D.H., M.Ed., RDH

April is Dental Health Month

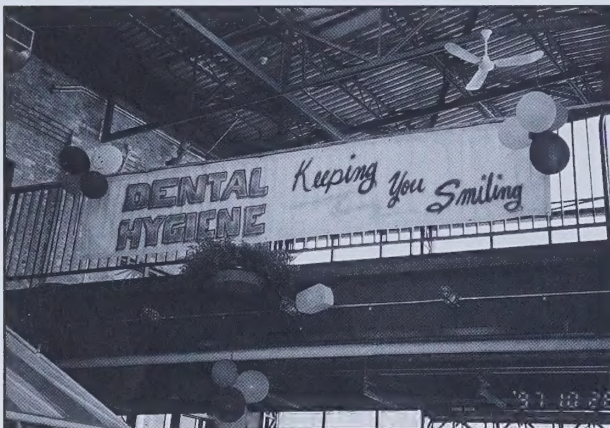
Dental health month, held every April, gives Canadians reason to smile. Dental health month is extremely successful in increasing public awareness of the importance of good oral health care through activities like free dental clinics, mall displays and contests. It's a time when dental hygiene and dental associations enlist the support of media to help deliver the dental health message. Together, we're helping Canadians keep their teeth good for life.

Avril, c'est le mois de la Santé Dentaire

Le mois de la santé dentaire, qui se déroule en avril, incite la population canadienne à sourire. Cet événement annuel permet de plus en plus, de sensibiliser la population sur l'importance de l'hygiène bucco-dentaire à l'aide de cliniques gratuites, d'expositions dans les centres commerciaux et de concours. C'est l'occasion idéale pour les organismes dentaires de solliciter le soutien médiatique afin de transmettre le message sur la santé bucco-dentaire. Ensemble, nous aidons la population canadienne à garder leurs dents saines toute la vie.

50

MDHA Takes Part in National Dental Hygiene Week October 20–26, 1997



MDHA's "Keeping You Smiling" banner was highly visible at St. Vital Center.

The Manitoba Dental Hygienists Association was once again proud to take part in the National Dental Hygiene Campaign with a series of fun events. In fact, "Something to Chew On", was a puppet show staged by a few of the University of Manitoba School of Dental Hygiene students encouraging dentally healthy foods. This was only one of eight displays promoting the role of the dental hygienist in "KEEPING YOU SMILING", part of Manitoba's National Dental Hygiene Campaign for 1997.

With slogans proclaiming "Are You Still Smoking?", "Does Your Breath Stop Traffic?", and "Tooth Bleach or Not Tooth Bleach?", the public had access to interesting relevant, and interactive displays. Prevention information was also available on topics such as sealants (Super Tooth Fights Decay), mouthguards (Don't Crack Your Smile), nursing bottle caries (Tiny Tooth Tips), and gums healthy (Plaque Attack).

New to this year's MDHA event were an extensive promotions campaign and the integration of activities to complement individual topics. The creativity of the students allowed and encouraged a more

hands-on approach for the public which facilitated the learning of both the students and the participants. For instance, people were able to see a before-and after photo of their teeth whitened, take a microscopic peek at their own bacteria lurking in their mouths, and take a test to determine the healthiness of their lunch packing skills.

MDHA presented their "KEEPING YOU SMILING" at St. Vital Center on October 18th, 1997. Attendance was excellent! There were displays on the following topics: "Ouch" — Solutions for Sensitive Teeth, "Gum Disease — Do you Have it?", "Teething Trouble — Infant and Toddler Dental Care" and "They're Just Baby Teeth or are They?"

Polaroids of huge toothy (and toothless) smiles were pinned up on their "Biggest Smile Contest" poster for children. This was an excellent and fun way of attracting people, young and old, to the displays. There was also a great deal of educational hand out material available. Overall, Manitoba events were a great success!!

Ginny Cathcart, President of the British Columbia Dental Hygienists Association (BCDHA) is pleased to announce her article entitled "Dental Care Devices" was accepted in the Spring 1998 issue of *Family Health* magazine. The article written is intended to help people weave their way through the vast number of "over the counter" dental care devices such as brushes, proximal devices, rinses, gels and pastes that are available. Subscription inquiries for this magazine may be directed to: Cathy Berry of the *Edmonton Journal* at (403) 429-5184 or Fax (403) 498-5661. *Family Health* is indexed in the *Canadian Periodical Index*.

A Synopsis of Dental Hygiene in the Faculty of Dentistry, UBC

The Past

- Two-year dental hygiene diploma program
- Required 30 first year university prerequisite credits implemented in 1968
- Dental hygiene diploma program discontinued in 1986 related to changes to the University's Mission and budget cutbacks.
- 358 graduates

The Present

BACHELOR OF DENTAL SCIENCE PROGRAM (BDSc.)

- Two-year dental hygiene degree completion program at the third- and fourth-year level for dental hygienists, implemented in 1992
- One of only two baccalaureate dental hygiene programs in Canada. Provides opportunity for advanced dental hygiene study rather than switching faculties or disciplines
- Articulates with diploma level programs in BC, as well as others in Canada and the US
- Offers 50% core/required courses and 50% elective courses
- Integrates dental hygiene students with second-, third- and fourth-year undergraduate dental students and graduate periodontics students
- Provides access to interdisciplinary courses in faculties such as Education, Commerce, Arts, Medicine, and the School of Nursing
- Offers full and part-time study options
- Utilizes distance education format for selected elective courses
- Accepts transfer of up to 30 course credits from other universities towards completion requirements
- 17 students enrolled currently, two full-time and 15 part-time: eight in fourth-year and nine in third-year
- Admits "unclassified" dental hygienists as students in the Current Issues in Oral Health Sciences core course to be taken for academic credit, as a means to market the Program and expand and enhance seminar participation
- Seven graduates to date
- Annual financial support from the BC Dental Hygienists Association

- Two annual application deadlines, **April 15** for admission in September and **September 15** for admission in January
- All courses approved by the College of Dental Hygienists of BC for continuing education requirements
- Experience as a practicing dental hygienist preferred but not required

MASTERS IN DENTAL SCIENCE PROGRAM (MSC.)

- Open to qualified dental hygienists holding any baccalaureate degree who meet the admissions criteria
- Offers a masters education opportunity for dental hygienists in a dental school environment
- Offers **part-time study** option to dental hygienists with practice and family responsibilities
- Two dental hygienist graduates, one in 1995 and one in 1996; third dental hygienist has completed coursework and research and starting thesis writing

ADDITIONAL DENTAL HYGIENE INVOLVEMENT

- Several dental hygienists hold part-time teaching positions in Periodontics and Community Dentistry courses in the undergraduate dental program (DMD)
- A dental hygienist practices part-time in the Graduate Periodontics Clinic in accordance with the standards of the Commission on Dental Accreditation of Canada.

The Future

- Funding has been obtained through UBC Continuing Studies — Distance Education and Technology to develop a web-based interactive core course in Oral Pathology for the BDSc Program, scheduled to be on-line in September 1999
- The possibility of offering BDSc Program core courses onsite at another university is being investigated.
- The feasibility of offering a four-year undergraduate degree in dental hygiene is under consideration.

For Further Information

For an application, contact the Admissions Coordinator at (604) 822-3416 or e-mail: fodadms@unixg.ubc.ca

For additional information, contact Bonnie Craig, Program Director at (604) 822-4680 or e-mail: bjcraig@unixg.ubc.ca



14th International Symposium on Dental Hygiene

The 14th International Symposium on Dental Hygiene will be held in Florence, Italy, July 2-4, 1998. For information, contact CDHA at 1-800-267-5235 or

Newtours srl

Via San Donato, 20
50127 Florence, Italy

Telephone: +39 55 33611

Facsimile: +39 55 3361250/350

The next application deadlines and examination dates for the National Dental Hygiene Certification Examination are:

APPLICATION DEADLINES

20 March 1998

17 July 1998

EXAMINATION DATES

19 May 1998

14 September 1998

Les dates limites d'inscription et les dates de l'examen national de certification en hygiène dentaire sont :

DATES LIMITES D'INSCRIPTION

20 mars 1998

17 juillet 1998

DATES DE L'EXAMEN

19 mai 1998

14 septembre 1998

For more information contact:

National Dental Hygiene Certification Board

P.O. Box 58006

Orleans, Ontario

K1C 7H4

Telephone (613) 837-2727

Fax (613) 837-6971

Pour obtenir de plus amples renseignements, veuillez communiquer avec :

Bureau national de la certification

en hygiène dentaire

C.P. 58006

Orléans (Ontario)

K1C 7H4

Téléphone : (613) 837-2727

Télécopieur : (613) 837-6971

Perio REPORTS

Bimonthly publication designed for dentists and dental hygienists concerned about their patient's periodontal health. Each issue summarizes periodontal research of specific interest to clinicians. Easy to read format keeps you up to date on the latest research findings.

Journals reviewed for **Perio REPORTS** include:

Journal of Periodontology
Journal of Clinical Periodontology
Journal of Periodontal Research
Journal of Dental Research
Periodontal Abstracts
Quintessence International
JADA, JADHA

☐ Please send sample issue for my review

☐ \$48 one-year ☐ \$84 two-year

Name

Address

City Prov. Postal Code

Mail to:

PerioREPORTS, P.O. Box 52090

311 - 16th Ave. NE, Calgary, Alberta T2E 8K9

**NEW !
PCxx**

PROPHY PASTE

1.23% Fluoride Ions reformulated to give

superior polished finish and packaged to suit your needs.

Non splatter consistency.

New flavours improve patient acceptance.

Available in 9 oz. jars and transparent single-use cups. Creamy and moist, will not flake.

Choice of 2 grits: coarse and medium. Cups colored coded for easy identification.

Advance stain removal and polishing properties.

Distributed by: **Ross Dental**

FOR PRODUCT INFORMATION
THE ULTIMATE IN VALUE AND QUALITY call: 1.800.663.8303

Lest We Forget

By Barbara (Crosson) Heisterman, RDH, E.D.H.

Barbara (Crosson) Heisterman was first featured in the March/April 1996 issue of Probe.

The following practice profile is an update to her practice and strong beliefs.



Barbara (Crosson) Heisterman,
RDH, E.D.H.

"The obscure we see eventually.

*The completely obvious,
it seems, takes longer."*

— Edward R. Murrow

Since the end of World War II, over 52 years ago, tremendous strides have been made in medical research, disease prevention and treatment. Canada's standard of living and healthcare system are envied worldwide, yet

few of our institutionalized and homebound chronically disabled elderly have access to basic dental services. These are individuals who have fought for our freedom and prosperity. Some have lost husbands and sons in our defence. Many lost their own youth and health. Their collective dedication to the building and development of our society and culture has helped place Canada as the #1 country in the world in which to live (U.N. ratings), yet we classify them as "an under served population"!

The dental health care requirements of the institutionalized elderly have been researched, documented, studied and discussed at length. The facts are simple: there is an ever increasing number of chronically disabled elderly; they are increasingly dentate; there is an enormous unmet need for dental services (estimated at 70 percent) in this population.

Their special needs are often misunderstood — out of sight; out of mind. They are generally a generation of "non-complainers" and "stiff upper lips." Many are totally dependent for their basic daily needs. Unlike subsequent generations, they don't make waves and do not have parents to lobby on their behalf.

In many communities there is a severe shortage of long term care facility accommodation. The Victoria area alone has over one thousand seniors waiting appropriate placement and the average waiting time is more than a year. Only those assessed with severe disabling conditions are admitted and it is estimated that for every resident in a facility, two are being maintained at home. The majority of these people find it very difficult, if not impossible, to leave their homes. Approximately 60 percent have dementia (Alzheimer's/vascular).

"Wheel Chair Access" is often of no use to a bed or wheel chair bound client. A trip to the dentist's office entails 8 transfers for a wheel chair dependent person. Frequently, an elderly spouse, relative or volunteer is responsible for providing transportation — a classic case of "the blind leading the blind" which can be physically dangerous and

exhausting for all concerned. For many clients with dementia, visits to dental offices are exercises in futility. Unfamiliar surroundings cause confusion and anxiety. These individuals are often uncooperative and may display aggressive and abusive behaviour. However, in the security of familiar surroundings, they are generally cooperative and even lengthy, complex dental procedures can be performed successfully. Hairdressers have known this for years; almost every nursing home has a beauty salon!

My understanding of the need to provide preventive dental services to long term care and homebound clients is based on personal experience and knowledge gained from circumstances involving both of my grandmothers. One of them, at age 93, was admitted to hospital and given a general anaesthetic for the extraction of some periodontally involved teeth. She returned home the same day but died after suffering a sub-dural haematoma as a result of a fall that night. The other developed rampant root caries at age 102, after two years of neglected mouth care and sipping on diet supplement drinks in an extended care facility. She required extractions and a complete lower denture: — big prices to pay for diseases that are preventable!

In December 1995, I established a sole proprietorship mobile dental hygiene practice. The legislation in B.C. made it possible for independent dental hygienists to provide services in long term care facilities. The College of Dental Hygienists of British Columbia has taken a pro-active position on registrants providing care to under served populations.

I discussed the need for this type of service with nursing home administrators and health care staff and found the greatest barriers to dental care for the chronically disabled to be the inability to treat



Barbara works at the bedside of an elderly patient at one of the 18 extended care facilities she visits.

on-site and the inconsistency of programs and providers. Most dental procedures are related to acute care (extractions), frequently in hospital under general anaesthesia. Prevention and staff education are often non-existent. I researched available mobile/portable dental equipment and purchased a unit and chair. The equipment is specifically designed for use in nursing facilities and can be used at bedside if required.

I began with 2 contracts (70 residents) and found dentists who were willing to examine, diagnose, treat and/or refer. I appreciate their commitment and vision. I am now contracted with 18 facilities (approximately 1000 residents) and work in co-operation with 8 dentists. The demand is growing and I will soon be needing another hygienist to help shoulder the load. Of course this process hasn't just happened, it required hundreds of hours of research, planning and preparation and a significant financial investment.

My program has been well received by facilities, staff, residents and their families. Personally and professionally it is very rewarding. I am not Mother Teresa and Florence Nightingale rolled in to one. I am making a comfortable living and more importantly, providing a much needed service and enjoying the rewards of my hard work as never before.

Unfortunately, legislation in most Canadian provinces prevents or limits dental hygienists' ability to practise independently. The semantics vary, but the bottom line is the same. The dental profession wants to maintain control of the delivery of *all* dental related services: control = power = money. However, most dentists don't have the time, interest, experience or resources to provide on-site care for these clients. Dental hygienists, on the other hand, are focused on prevention and well qualified to provide educational, clinical and referral services. Dentists should recognize that dental hygienists in this primary care role, will increase their practice profitability. I have referred hundreds of patients and thousands of treatment dollars to dentists in the community. These are the patients who have "fallen through the proverbial cracks" and are well out of the "dental loop."

Healthcare dollars are in short supply and we are all looking for the best value for those dollars. Prevention of dental disease is essential to reduce these costs. Hospital operating rooms are booked out months in advance, elective surgery has long waiting lists and operating room time allocated for dentistry has been drastically reduced. Preventive dental services provided by licensed qualified providers on a fee-for-service basis is a win-win situation.

We know there is a tremendous and growing need for dental care in the institutionalized elderly population. It has been studied, ad nauseum, for decades. Surely, we have a moral and professional responsibility to ensure that these clients can live out their lives with comfortable, functional, disease free, esthetically pleasing mouths.

It is time to end the destruction and delay caused by dental professional turf wars, get on side as a *real* team, and let the action begin!

There can only be winners with this line of play!

"Faced with having to change our views or prove that there is no need to do so, most of us get busy on the proof."

— John Kenneth Galbraith

CONTINUING EDUCATION CALENDAR

APRIL

23 **ANTIBIOTICS IN DENTISTRY***
Presenter: Dr. W.C. Foong
Continuing Dental Hygiene Education

26 **DENTAL HYPNOSIS —
AN INTRODUCTORY WORKSHOP***
Presenters: Drs. Don Brown,
Kent Cadegan, John Lovas,
Michael Sullivan and Byron Reid
Continuing Dental Hygiene Education

MAY

1–2 **NITROUS OXIDE
CONSCIOUS SEDATION***
(limited enrollment)
Presenters: Drs. David Donaldson
and Daniel Haas
Continuing Dental Hygiene Education

**For information, please contact: Continuing Dental
Education, Faculty of Dentistry, Dalhousie University,
(902) 494-1674.*

7–9 **ODA/CDA NATIONAL
CONVENTION**
Metro Convention Centre
Information 1-800-267-6354

25–27 **LES JOURNÉES DENTAIRES
DU QUÉBEC
27^e CONGRÈS ANNUEL
DE L'ORDRE DES DENTISTES
DU QUÉBEC**
Palais des Congrès de Montréal
Renseignements (514) 875-8511

JUNE

19–21 **CDHA 9th ANNUAL
PROFESSIONAL CONFERENCE
INTERDISCIPLINARY
CONNECTIONS: BRIDGING
THE GAP**
Charlottetown, PEI
Shirley Verheyden, Conference
Coordinator (613) 820-0084

OCT.

23–25 **CONGRÈS PROVINCIAL 1998
DE L'ORDRE DES HYGIÉNISTES
DENTAIRES DU QUÉBEC**
Loews Le Concorde de Québec
Renseignements (514) 733-4098

- The maverick, a practitioner of the prevailing paradigm who sees the problems on the shelf, understands that the present paradigm will not work to solve them, and leads the charge to change paradigms.

Tinkerers who don't know it's a special problem but know that a particular problem needs solving and develop a solution that leads to a model or paradigm for solving an entire class of problems.⁶

The entrepreneurial dental hygienist may be from any one of these categories.

"Much of the turbulence of our times is caused by:

(1) the failures of the old paradigms (and the attempts to prop up those outmoded rules), and (2) the creation and introduction of new paradigms."⁷

Barker quotes Peter Drucker's observation:

"Significant competitive advantage lies with those organizations and individuals who anticipate well in turbulent times."⁸

The dental hygiene profession will grow and opportunities will develop as individual dental hygienists look for the possibilities in paradigm shifts.

References

1. Barker, Joel Arthur. *Paradigms The business of discovering the future*. Harper Collins 1992.17
2. Kuhn, Thomas S. *The Structure of Scientific Revolutions* University of Chicago Press 1970. 113
3. Barker. 69
4. Kuhn. 82
5. Barker. 156
6. Barker. 57-65
7. Barker. 204
8. *ibid*.

Pat Spencer is a Registered Dental Hygienist who provides mobile oral health services. She is a graduate from the University of Toronto and Trent University. She has over 30 years of experience in a variety of practice settings. Ms. Spencer's mobile provides on-site dental hygiene services for the homebound, chronic care and long-term care resident. She can be reached through her business address at R.R. #4, Simcoe, Ontario N3Y 4K3, or by phone at (519) 428-2663, by fax (519) 428-6874 or by cellular (519) 429-9164.

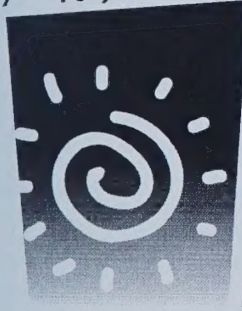
55

FORM FOLLOWS FUNCTION... (continued from page 47)

It was able to focus its efforts and energy into revising the CDHA mission statement and developing a group of key values and goals for the next five years. From these outcomes, they proposed a new structure that is future focused and committed to providing mechanisms for CDHA to truly become the national collective voice for dental hygiene. The report outlining all the specifics and the draft documents is currently being communicated to the stakeholders for comment and we are optimistic that the proposed changes will be ratified at our Annual meeting in June.

A challenge in any process, such as that which the Board just participated in, is ensuring that, at all times, our responsibility to the profession was not forgotten. As the national association, the CDHA Board has the fiduciary duty or legal responsibility to do what is best for the profession and the country. We constantly monitored our actions to maintain this national perspective and we are proud of the outcomes. As a result of the proposed changes, it is our belief that the profession of dental hygiene is certainly poised to accomplish even bigger and better things.

7 - 10 June 1998



**Canadian Public Health Association
89th Annual Conference**

**Best Practices in
Public Health:**

*An Essential
Contribution,
A Promising and
Exciting Future*

Montréal

7-10 June 1998 ■ Montréal, Québec
Queen Elizabeth Hotel

**For more information, contact the
Canadian Public Health Association
Conference Department**

400-1565 Carling Avenue, Ottawa, ON, K1Z 8R1

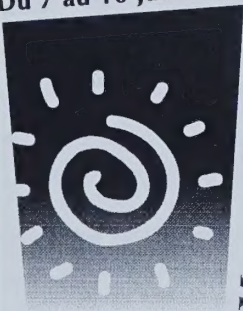
☎ 613-725-3769 ☎ 613-725-9826 ✉ conferences@cpha.ca

Internet: <http://www.cpha.ca>



Co-sponsored by the Association pour la santé publique du Québec

Du 7 au 10 juin 1998



**89^e Conférence annuelle de
l'Association canadienne de
santé publique**

**Les bons coups
de la santé
publique :**

*une contribution
essentielle, un
futur prometteur
et passionnant*

Montréal

Du 7 au 10 juin 1998 ■ Montréal, Québec
Hôtel Queen Elizabeth

Pour plus de renseignements, veuillez contacter :

Association canadienne de santé publique
Services des conférences

400-1565 avenue Carling, Ottawa (Ontario) K1Z 8R1

☎ 613-725-3769 ☎ 613-725-9826 ✉ conferences@cpha.ca

Internet: <http://www.cpha.ca>



Co-parrainée par l'Association pour la santé publique du Québec

SELF-ASSESSMENT TEST



Prepared by the National Dental Hygiene Certification Board (NDHCB). The NDHCB is the agency responsible for the development, administration, scoring and reporting of results of the National Dental Hygiene Certification Examination. CDHA is pleased to announce a new partnership with the NDHCB by providing sample questions likely to appear on the National Dental Hygiene Certification Examination in future Probe issues.

56

1. Wolfgang, 15 years old, has been the dental hygienist's client for 3 years. For the last several appointments, the dental hygienist has reinforced the Bass brushing technique and flossing. The dental hygienist now notes an increase in gingival inflammation and dental plaque deposits. Which one of the following actions would be most appropriate for the dental hygienist to take?

1. Advise Wolfgang's parents of his oral hygiene condition.
2. Collaborate with Wolfgang to revise his oral home-care strategies.
3. Treat Wolfgang for desquamative gingivitis.
4. Treat Wolfgang for periocoronitis.

2. Jennifer, 18 years old, presents for her appointment with the dental hygienist. Jennifer indicates, "Right after my last appointment, I got a big cold sore on my lower lip, and come to think of it, the same happened after my appointment before that." Jennifer asks, "Is this just a coincidence or are these cold sores caused by something in this dental office?" Which of the following responses by the dental hygienist would be most appropriate?

1. It is unlikely that the cold sores are connected to dental hygiene visits. We sterilize our instruments and practice universal precautions.
2. Cold sores are caused by a virus that is dormant in many people's body. Factors such as stress, sunlight, or slight irritation can reactivate it.
3. Cold sores are an occasional occurrence after dental appointments. There are many theories explaining why this might happen, but none of them have been conclusively proven.
4. Cold sores are caused by a virus. It is unlikely that it was reactivated during a visit to our office.

3. In which one of the following cases should a dental hygienist use ultrasonic instrumentation?

1. Intrinsic stain on mandibular anterior teeth
2. Mature calculus on titanium implants
3. Interproximal overhanging amalgam restorations
4. Calculus on the occlusal surfaces of porcelain crowns

4. Bill Est, 15 years old, arrives for his dental hygiene appointment. He presents with moderate calculus deposits, red gingiva and generalized 4 mm pockets. He states that he flosses regularly and brushes often. Which one of the following actions by the dental hygienist is most appropriate?

1. Refer the client to a periodontist.
2. Use the decayed, missing and filled permanent teeth index (DMFT).
3. Use the Gingival Bleeding Index (GBI).
4. Conduct a lactobacillus test.

5. Mrs. Cormier, aged 70, presents for dental hygiene therapy. Mrs. Cormier explains that she is in the second week of chemotherapy treatment for breast cancer. Which one of the following conditions will the dental hygienist most likely observe in Mrs. Cormier's mouth?

1. Complete loss of saliva flow and taste sensation
2. Complete loss of taste sensation
3. Increased root caries
4. Reduced saliva flow and inflammation

Answer Key and Rationale

- (The correct answer is indicated in parentheses)
1. (2) Adolescent clients can be enlisted to help identify the deficiencies related to the need for an effective oral hygiene regime.
 2. (2) "Cold sores" are caused by the Herpes simplex virus. After primary contact with the virus, a latent infection is established and may be reactivated by factors such as stress, sunlight exposure, trauma, etc.
 3. (3) The ultrasonic machine is indicated for the removal of overhanging restorations.
 4. (3) Based on the principle that healthy tissue does not bleed, testing for bleeding has become a significant procedure for evaluation prior to and following treatment.
 5. (4) Mucositis and xerostomia are the primary oral manifestations from chemotherapy (ulceration and candidiasis are secondary).

References

- Kulkin ME, Greenspan MD. "Chemotherapy Your Weapon Against Cancer". The Chemotherapy Foundation, Inc., 1978, New York.
- Nguyen AMH. "Dental management of patients who receive chemo- and radiation therapy". *General Dentistry*. August 1992; 305-311.
- Barker GJ, Barker BF. "Management of the patient undergoing cancer chemotherapy the role of the dental hygienist". *JDH*. May 1991; 184-187.
- Cooper RM, Cooper MR. "Basis for major current therapies for cancer". *Clinical Oncology* Second Ed. American Cancer Society: 96-134, 1995.
- Bloom HG, Hanham IF, editors: *Head and neck oncology*, New York, 1987, Raven Press.
- Silverman S. *Oral Cancer*. Third ed., American Cancer Society, 1989.
- Terezhalmy GT, Whitmyer CC, Markman M. "Cancer Chemotherapeutic Agents". *Dental Clinics of North America*. Vol. 40 No. 3 (July 1996): 709-726.
- Dreizen, S. "Description and incidence of oral complications". *NCI Monographs*, No. 9: 3-15, 1990.
- Weikel D, McLeran H, Barnard S. "Modifications of dental hygiene care for patients with special needs". *Comprehensive Dental Hygiene Care*, Fourth Ed. (I Woodall ed) Mosby, St. Louis Mis. 391-424, 1993.
- Gilman A. "The initial clinical trial of nitrogen mustard". *Am J Surg*. 105: 574-578, 1963.
- Salmon SE, Sartorelli AC. "Cancer chemotherapy". *Basic and Clinical Pharmacology* Fifth ed. Appleton and Lange, Norwalk Connecticut: 766-800, 1992.
- McClure D, et al. "Oral management of the cancer patient. I Oral complications of chemotherapy". *Compend Contin Educ Dent*. 8: 41, 1987a.
- Rosenberg SW. "Oral care of chemotherapy patients". *Dental Clinics of North America*. 34:239-250, 1990.
- Barrett AP. "A long-term prospective clinical study of oral complications during conventional chemotherapy for acute leukemia". *Oral Surg Oral Med Oral Pathol*. 63: 313-316, 1987.
- Sonis ST, Sonis AL, Lieberman A. "Oral complications in patients receiving treatment for malignancies other than of the head and neck". *J Am Dent Assoc*. 97: 468-472, 1978.
- Magrath IT, Janus C, Edwards BK, et al. "An effective therapy for both undifferentiated (including Burkitt's) lymphomas and lymphoblastic lymphomas in children and young adults". *Blood* 63: 1102-1111m 1984.
- Peterson D, Sonis S. *Oral complications of cancer chemotherapy*. Boston, Martinus Nijhoff Publishers, 1983.
- Peterson DE, Schubert MM. "Oral toxicity". In *The Chemotherapy Source Book*. (Pery MC ed.) Williams and Wilkins, Baltimore, pp 508-530, 1991.
- Barker GJ, Barker BF, Gier RE. *Oral management of the cancer patient: A guide for the health care professional*. Fourth edition, University of Missouri-Kansas City School of Dentistry, 1996.
- Rosenberg SW. "Care of the mouth for chemotherapy and radiation therapy patients". *Manual of oncologic therapeutics*. May 1988.
- Epstein JB, "Oral complications of cancer chemotherapy: etiology, recognition, and management". *The Canadian Journal of Oncology*; 2(2): 83-95, April 1992.
- Sonis ST, Sonis AL, Lieberman A. "Oral complications in patients receiving treatment for malignancies other than of the head and neck". *JADA* 97: 468-472.
- Peterson, DE. "Oral complications associated with hematologic neoplasms and their treatment" *Head and Neck Management of the Cancer Patient*. Boston, Martinus Nijhoff Publishers, 1986.
- Scully C, El-Kabir M, Samranayake LP. "Candida and oral candidosis". *Crit Rev Oral Biol Med*. 5: 125-127, 1994.
- Barrett AP. "A long-term prospective clinical study of oral complications during conventional chemotherapy for acute leukemia". *Oral Surg*. 63: 313-316, 1987.
- Berkow R, Fletcher AJ, Beers MH, et al. *The Merk Manual sixteenth ed*. Merk Research Laboratories, Rahway, NJ. P 2475, 1992.
- Epstein JB, Gangbar SJ. "Oral mucosal lesions in patients undergoing treatment for leukemia". *J Oral Med*. 42(3): 132-137, 1987.
- Bodey GP, Hersh E, Baldivieso M, et al. "Effects of cytotoxic and immunosuppressive agents on the immune system". *Postgrad Med*. 58: 67-74, 1975.
- Epstein JB, Freilich MM, Le ND. "Risk factors for oropharyngeal candidiasis in patients who receive radiation therapy for malignant conditions of the head and neck". *Oral Surg Oral Med Oral Path*. 76: 169-174, 1993.
- Working Party of the British Society for Antimicrobial Chemotherapy. "Chemoprophylaxis for candidosis and aspergillosis in neutropenic and transplantation: a review and recommendations". *J Antimicrob Chemo*. 32: 5-21, 1993.
- Ruskin JD, Wood RP, Bailey MR, et al. "Comparative trial of oral clotrimazole and nystatin for oropharyngeal candidiasis: Prophylactic use in orthotopic liver transplant patients". *Oral Surg Oral Med Oral Path*. 74: 567-571, 1992.
- Yap BS, Bodey GP. "Oropharyngeal candidiasis treated with a troche form of clotrimazole". *Arch Intern Med*. 139: 656-657, 1979.
- Goodman JL, Winston DJ, Greenfield RA, et al. "A controlled trial of fluconazole to prevent fungal infections in patients undergoing bone marrow transplantation". *New Engl J Med*. 326: 845-851, 1992.
- Montgomery MT, Redding SW, LeMaistre CE. "The incidence of oral herpes simplex virus infection in patients undergoing cancer chemotherapy". *Oral Surg Oral Med Oral Path*. 61: 238-242, 1986.
- Greenberg MS, Greidman H, Cohen SG, Boosz B, et al. "Oral herpes simplex infections in patients with leukemia". *J Am Dent Assoc*. 114: 483-486, 1987.
- Greenberg MS, Friedman H, Cohen SG, et al. "A comparative study of herpes simplex infections in renal transplant and leukemic patients". *J Infect Dis*. 156: 280-287, 1987.
- Schubert MM, Peterson DE, Flournoy N, et al. "Oropharyngeal herpes simplex virus (HSV) infections following bone marrow transplantation (BMT)". *Am Soc Clin Oncol*. 4: 257, 1985.
- Dreizen S. "Description and incidence of oral complications". *NCI Monographs*. 9: 11-15, 1990.
- Mintz GA, Rose SL. "Diagnosis of oral herpes simplex virus infections: Practical aspects of viral culture". *Oral Surg Oral Med Oral Path*. 58: 486-492, 1984.
- Seral R. "Management of acute viral infections". *NCI Monographs*. 9: 107-110, 1990.
- Epstein JB, Schubert MM, Scully C. "Evaluation and treatment of pain in patients with orofacial cancer: a review". *Pain Clinic*. 4: 3-20, 1991.
- Balfour JJ, Bean B, Laskin OL et al. "Acyclovir halts progression of herpes zoster in immunocompromised patients". *N Engl J Med*. 308: 1448-1453, 1983.
- Scully C, Epstein JB. "Oral health care for the cancer patient". *Oral Onc*, *Eur J Cancer* 32B(5): 281-292, 1996.
- Schubert MM, Epstein JB, Lloid ME, Cooney E. "Oral infections due to cytomegalovirus in immunocompromised patients". *J Oral Pathol Med*. 22: 268-273, 1993.
- LeVeque FG, Ratanatharathorn V, Dan ME, Orville B, Coleman DN, Turner S. "Oralcytomegalovirus infection in an unrelated bone marrow transplantation with possible mediation by graft-versus-host disease and the use of cyclosporin-A". *Oral Surg Oral Med Oral Path*. 77: 248-253, 1994.
- De Clerq E. "Antivirals for the treatment of herpes virus infections". *J Antimicrob Chemo*. 32(Suppl A): 121-132, 1993.
- Peterson DE, Gerad H, Williams LT. "An unusual instance of leukemic infiltrate: diagnosis and management of periapical tooth involvement". *Cancer* 51: 1716-1719, 1983.
- Vuolo SJ. "Oral complications of cancer chemotherapy and dental care for the cancer patient receiving antineoplastic drug therapy: a literature review". *NY J Dent*. 57: 50, 1987.
- Epstein JB, Scully C. "The role of saliva in oral health and the causes and effects of xerostomia". *J Can Dent Assoc*. 58(3): 217-220, 1992.
- Carl W. "Managing the oral manifestations of cancer therapy, part II: chemotherapy". *Compend Contin Educ Dent*. 9(5): 376-386, 1988.
- Yasko JM, Greene P. "Coping with problems related to cancer and cancer treatment". *C A*. 37: 106, 1987.
- Silverman S Jr, Thompson JS. "Serum zinc and copper in oral/oropharyngeal carcinoma: a study of seventy-five patients". *Oral Surg*. 57: 34, 1984.
- Miaskowski C. "Management of mucositis during therapy". *NCI Monographs*. 9: 95-98, 1990.
- Epstein JB. "Infection prevention in bone marrow transplant and radiation patients". *NCI Monographs*. 9: 73-85, 1990.
- Daeflerr R. "Oral hygiene measures for patients with cancer II". *Cancer Nurs*. 3: 427-432, 1980.
- Daeflerr R. "Oral hygiene measures for patients with cancer III". *Cancer Nurs*. 4: 29-35, 1981.
- Dibiase CB, Komives BK. "An oral care protocol for leukemic patients with chemotherapy induced oral complications". *Spec Care Dent*. 3: 207, 1983.
- Addams A, Epstein JB, Damji S, Spinelli J. "The lack of efficacy of a foam brush in maintaining gingival health: a controlled study". *Spec Care Dent*. 12(3): 103-106, 1992.
- Epstein JB, Ransier A, Lunn R, Spinelli J. "Enhancing the effect of oral hygiene with the use of a foam brush with chlorhexidine". *Oral Surg Oral Med Oral Path*. 77(3): 242-247, 1994.
- Mahood DJ, Dose AM, Loprinzi CL, et al. "Inhibition of fluorouracil-induced stomatitis by oral cryotherapy". *J Clin Oncol*. 9: 449-452, 1991.
- Brown AC, Slocum PC, Putthoff SL, Wallace WE, Foresman BH. "Exogenous lipid pneumonia due to nasal application of petroleum jelly". *Chest*. 105: 968-969, 1991.
- Greenberg MS, Cohen SG, McKittrick JC, Cassileth PA. "The oral flora as a source of septicemia in patients with acute leukemia". *Oral Surg*. 53: 32-36, 1982.
- Peterson DE, Overholser CD. "Increased morbidity associated with oral infection in patients with acute nonlymphocytic leukemia". *Oral Surg*. 51: 390-393, 1981.
- Kirkwood JM, Lotze MT, Yasko JM. *Current Cancer Therapeutics*. Current Medicine, Philadelphia, PA: p. 254, 1994.
- National Institutes of Health Development Panel. "Consensus statement: oral complications of cancer therapies". *NCI Monographs*. 9: 3-8, 1990.
- Peterson DE. "Pretreatment strategies for infection prevention in chemotherapy patients". *NCI Monographs*. 9: 61-71, 1990.
- Toth BB, Frame RT. "Dental Oncology: the management of disease and treatment of related oral/dental complications associated with chemotherapy". *Curr Probl Cancer*. 7(10): 7-35, 1983.
- Wright WE, et al. "An oral disease prevention program for patients receiving radiation and chemotherapy". *JADA*. 110: 43, 1985.
- Sonis ST, Kunz A. "Impact of improved dental services on the frequency of oral complications of cancer therapy". *Oral Surg Oral Med Oral Path*. 65: 19-22, 1988.
- Lindquist SE, Hickey AJ, Drane JB. "Effect of oral hygiene on stomatitis in patients receiving cancer chemotherapy". *J Prosthet Dent*. 40: 312-314, 1978.

Internet Usage by Dental Hygienists

By Penny Spacie, RDH

Thesis Statement

That the Internet provides the ideal forum for the novice and experienced dental hygienist to seek and share information. Presented to the Professional Aspects of Dental Hygiene course at the Georgian College Dental Hygiene Program.

66

What is the Internet? The Internet is a worldwide connection of computer networks that has grown in a remarkable manner in a very short time. A recent study of Internet users by O'Reilly & Associates reports that 5.8 million Americans have direct access to the Internet and 3.9 million others use commercial on-line services. According to the Internet Society the world wide web grew 1,154 percent in 1994 and more than 15,000 web sites were established before the beginning of 1995. The Internet connects more than 20 million people to 1,000 libraries, 12,000 news groups and 2 million host computers.¹ This unparalleled degree of interconnectivity encourages more communication, collaboration and resource and information sharing than ever before.

How can the Internet be used in the dental hygiene office? The most obvious and practical use for on-line communication in a dental office is electronic claims submission. This simple service to our clients saves hours of paperwork both in the business function of the office and in the client's place of work as well as speeding reimbursement

to the client. The degree of goodwill generated by this facility is truly amazing. However, the Internet is a network of many millions of computers providing access to an incredible array of information that can be of immeasurable use. For instance, a client asks about a new technique that was discussed on a radio program. This cannot readily be researched at the local library because reference books can take up to five years from inception to publication (assuming that the local library has a reasonably comprehensive section on Dentistry). However, a simple "search" of the Internet using the key words mentioned by the client can elicit the desired information immediately. If more practical information is sought, a question can be posed to a Newsgroup or Listserv. In very short order a response can be received, probably from a professional who has had personal experience with the new technique. By the time the client leaves the office at the end of his/her appointment a brief outline of the new technique can be offered and a follow-up telephone call, once all the other sources have been tapped, will truly make this client feel well cared for.

Internet Addresses

NATIONAL CENTER FOR DENTAL HYGIENE RESEARCH
<http://jeffline.tju.edu/DHNet/>
Source of information on Research, Clinical Practice, Consumer Information, Professional Education, Literature.

ASSOCIATIONS

AMERICAN ACADEMY OF IMPLANT PROSTHODONTICS
<http://www.inca.net/aaip>

AMERICAN ACADEMY OF PEDIATRIC DENTISTRY
<http://aapd.org>

AMERICAN ACADEMY OF PERIODONTOLOGY
<http://www.perio.org>

INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH
<http://www.iadr.com>

AMERICAN ASSOCIATION OF ORAL BIOLOGISTS
<http://www2.musc.edu/AAOB.html>

AMERICAN DENTAL ASSOCIATION
<http://www.ada.org/>

AMERICAN DENTAL HYGIENISTS' ASSOCIATION
<http://www.adha.org>

ASSOCIATION FOR DENTAL EDUCATION IN EUROPE
<http://www.odont.ku.dk/adee/>

CALIFORNIA DENTAL HYGIENISTS' ASSOCIATION
<http://www.cdha.org>

CONNECTICUT DENTAL HYGIENISTS' ASSOCIATION
<http://www.cdha.com>
Includes links to other pages.

CANADIAN DENTAL HYGIENISTS ASSOCIATION
<http://www.cdha.ca>

NATIONAL INSTITUTE OF DENTAL RESEARCH
<http://www.nidr.nih.gov>

GENERAL INFORMATION

DENTAL CONNECTIONS
<http://benefits.org/interface/contact/dental.htm>
Mailing addresses of Canadian national and provincial dental associations.

DENTISTINFO.COM
<http://www.dentistinfo.com>
Dental information and a listing of interesting sites.

LINKS TO DENTAL SITES

DENTAL GLOBE
<http://www.dentalglobe.com/>

VIRTUAL PERIODONTOLOGY
<http://www.odont.lu.se/>
Excellent pictures with clear descriptions. Accesses European Academy of Periodontology with library of graphic images of periodontitis.

RESOURCES FOR DENTAL HYGIENISTS
<http://www.dentalsite.com/hygienists>

Lists continuing education, hygiene schools in the US and International, publications and websites for dental hygiene students.

How can the Internet help a dental hygienist? While undergoing education in college or university the dental hygiene student is surrounded by a wonderful support group of professionals and library services, however, upon graduation the novice hygienist instantly is looked upon as an "expert". This is rather like having your training wheels taken off the bicycle as you lurch down the street. There will be a myriad of questions that the newly-practising hygienist is seeking answers to and requires for life-long learning. Help is only a couple of keystrokes away. There are websites where images (similar to those seen on slides in class) and reference articles can be located. There are Newsgroups and Listservs, where a question can be launched and other professionals will be happy to respond with practical proven solutions to your problems. All this and your anonymity is preserved.

Why would a dental hygienist need to use the Internet? Increasingly today more and more hygienists are working in very small offices with perhaps one or at most two dentists and probably no other dental hygienists. Office hours more commonly have been adjusted so that evening and Saturday appointments can be offered to clients and as such it is becoming impossible for some hygienists to attend their local Dental Hygiene Association meetings. These meetings are the traditional forum for networking of ideas and problems amongst our peers, once this avenue is closed it is difficult to find another substitute that can be accessed readily and conveniently and this is where the Internet can fill the void. Rather than feeling isolated, the dental hygienist can link with a worldwide group of hygienists and share problems and solutions with them.

New products are appearing in the marketplace on an almost daily basis and to personally obtain and test all of them is not feasible, however, by utilizing the Internet, clinical information can be obtained direct from the manufacturer; a question could be posed in a Newsgroup and some initial information gathered prior to deciding if the product is worth trying in your own practice.

Similarly, by monitoring the discussion in the Newsgroups and Listservs, we are able to participate in the worldwide community of dentistry and share our own experiences with our peers.

Some hygienists are working in remote locations and find it difficult to attend continuing education seminars in order to keep current with new techniques and methods. They may wish to undertake some further education and many colleges are offering courses in a "Distance Learning" format that utilizes on-line links either directly with the school or via the Internet.² This is a growing form of learning that the colleges are embracing eagerly. It enables them to offer education to an almost unlimited number of students without having to provide expensive "hard facilities" such as classrooms, clinics or laboratories. By utilizing a "Distance Learning" format once the course is designed the student can move through the modules at her/his own pace and at a time that is convenient to an individual schedule.

Some of the Dental Hygiene Associations in the US have produced very interesting websites that not only offer information on current Association activities, Mission Statements etc. but also offer links to other interesting sites, and E-Mail to Association employees. These sites could also be used as an updating source for topical subjects such as the status of various submissions to government. If a quick response is sought of member opinions on a subject a "mini poll" could be conducted.

At Thomas Jefferson University Dr. Jane L. Forrest has established the National Centre for Dental Hygiene Research. This site, known as DHNet, contains more links to reputable sites related to Dental Hygiene than any other. There are reference journals that can be accessed and a research grant has recently been received "for a project to develop, implement and evaluate a model for synthesizing and advancing dental hygiene knowledge".³ Dr. Forrest believes that "having

Internet Addresses

LINKS TO DENTAL SITES

DENTAL LINKS EXPLORER

<http://www.dental-connect.com/prolinks.htm>

Excellent listing of dental associations, schools and related sources with links to most.

DENTAL RELATED INTERNET RESOURCES

<http://www.dental-resources.com/index.html>

DENTISTRY ON-LINE

<http://www.priory.com/dent.htm>

MARTINDALE'S HEALTH SCIENCE GUIDE

<http://www-sci.lib.uci.edu/HSG/HSGuide.html>

ALTAPEDIA ONLINE

<http://www.geopedia.com>

Contains key information on every country of the world. Profiles facts and information

on geography, climate, people, religion, language, history and economy.

ADHA KID'S STUFF

<http://www.adha.org/kidstuff.htm>

WEB FACTOR

<http://www.webfactor.com>

Dental hygiene consulting for the modern dentist

INFORMATION AND EDUCATION

THE TOOTH FAIRY

<http://www.toothfairy.org>

Excellent site for information and fun. Plenty for the kids as well.

DENTAL RESOURCENET

(PROCTOR & GAMBLE)

<http://www.dentalcare.com>

Provides resources and information concerning patient

care, practice management, continuing education, dental hygiene meetings or event calendars, product information. Also includes an online library with access to Medline and Pharmaceutical databases.

UNIVERSITY OF MARYLAND

<http://www.dentalstudent.ab.umd.edu/iss/disc.htm>

The Department of Educational and Instructional Resources.

TOOTH TALK

<http://www.toothtalk.com>

Educates the orally concerned on dental topics.

THE DENTAL SITE

<http://www.dentalsite.com>

Links for patients, dentists, hygienists, students or anyone interested in the field of dentistry.

SYBERTOOTH

<http://www.sybertooth.com>

A guide to dentistry meetings and continuing education.

WALDMANN DENTAL LIBRARY

<http://www.nyu.edu/dental/library/>

INFORMATION SOURCES FOR

DENTAL PROFESSIONALS

<http://www.infi.net/>

CENTRE FOR THE HEALTH PROFESSIONS

<http://futurehealth.ucsf.edu>

Information on special programs, training, communications, research and publications.

dental hygiene research on-line allows for broader interaction and collaboration among researchers that can improve the nature of the questions being asked, the input and critique provided, and the scope of participation."

"At one time, books were the quickest way to disseminate scholarly information. Now, professional journals provide more timely access and yet we know that it can take 6-18 months to go through the traditional peer review, editing, and publishing process. During this time, research, and new ideas have been presented through other means, such as papers at professional meetings, and some version of the work has been distributed."

"Given the need for more timely distribution of information, high-speed electronic dissemination has begun to provide an alternative means of accepted scholarly communication. The primary difference between journals as we now know them and electronic journals is the means of distribution not the content. In fact, maintaining scientific quality through the peer review process on the Internet was the focus of an international conference on refereed electronic journals." "Perhaps more important," says Forrest, "readers have an opportunity to discuss research findings or send comments and questions directly to the authors to learn more about the topic. This interactive feature may be the most critical factor in generating and advancing new ideas and attracting scholars to publish in this format." "I think disseminating research via the Internet is an exciting new area of interest for dental hygienists that will hopefully make the information more accessible than ever before, but it's up to dental hygiene researchers, educators and professional representatives to provide leadership as the technology emerges — to make sure that the integrity of the profession's body of knowledge is protected."

The establishment of DHNet and the leadership of Dr. Forrest in this area opens new vistas for us and provides a unique and authoritative reference point for the hygiene profession. This is definitely a site to watch and visit regularly.

Summary

In summary, the Internet is a marvellous communication tool that definitely has a place in dentistry, however, the same degree of caution and similar criteria should be applied to evaluating information and data from Internet sources as it is applied to evaluating material in more traditional forms such as books and journals. Dentistry has always been considered a "hands-on" personal touch profession that has shied away from computerization. By utilizing all that modern technology offers us, we are better able to care for our clients, maintain and upgrade our skills and improve the quality of care we offer. This new tool can serve us well as we work with our clients to develop a successful partnership in their oral care.

References

1. John L. Zimmerman, DDS, "The Electronic Window to the World", *Journal of Dental Education*, January 1996
2. Access, November 1996
3. Andy Propst, "Dental Hygiene Gets Electronically Interconnected", *Access*, January 1996

Penny Spacie is a 1997 graduate of the Georgian College Dental Hygiene Program working in private practice.

From CDHA: Thanks to everyone for taking time to be part of our Internet survey. The overwhelming responses received will help us further develop and enhance our current presence on the WWW at: <http://www.cdha.ca> E-mail: info@cdha.ca

ORAL MANAGEMENT OF THE CANCER PATIENT... (continued from page 65)

71. Bavier AR. "Nursing management of acute oral complications of cancer". *NCI Monographs*. 9: 123-128, 1990.
72. Little JW, Fallace DA. *Dental Management of the Medically Compromised Patient* fourth ed. Mosby, St. Louis: pp. 77-97, 413-438, 1993.
73. Westcott WB. "Dental management of patients being treated for oral cancer". *J Can Dent Assoc*. 13: 42, 1985.
74. Toth BB, Martin JW, Fleming TJ. "Oral and dental care associated with cancer therapy". *Cancer Bulletin*. 43(5): 397-402, 1991.
75. Carl W. "Local radiation and systemic chemotherapy: preventing and managing the oral complications". *JADA*. 124(3): 119-123, 1993.
76. Leggot PJ. "Oral complications in the pediatric population". *NCI Monographs*. 9: 129-132, 1990.
77. National Cancer Institute of Canada. "Canadian Cancer Statistics 1996". Toronto, Canada, 1996.
78. Sanders JE. "Implications of cancer therapy to the head and neck on growth and development and other delayed effects". *NCI Monographs*. 9: 163-167, 1990.
79. McLeod RI, Welbury RR, Samis JV. "Effects of cytotoxic chemotherapy on dental development". *J R Soc Med*. 80: 207-209, 1987.
80. Purdell-Lewis DJ, Stalman MS, Leeuw JA, et al. "Long-term results of chemotherapy on the developing dentition: caries risk and developmental aspects". Dental School, University of Groningen, The Netherlands. *Community Dent Oral Epidemiol*. 16: 68-71, 1988.
81. Rosenberg SW. "Chronic dental complications". *NCI Monographs*. 9: 173-178, 1990.
82. O'Reilly RJ. "Allogeneic bone marrow transplantation: current status and future directions". *Blood*. 62: 941-964, 1983.
83. Philip T, Armitage JO, Spitzer G, et al. "High-dose therapy and autologous bone marrow transplantation after failure of conventional chemotherapy in adults with intermediate-grade or high-grade non-Hodgkin's lymphoma". *N Engl J Med*. 316: 1493-1498, 1987.
84. Eder JP, Antman K, Peters W, et al. "High-dose combination alkylating agent chemotherapy with autologous bone marrow support for metastatic breast cancer". *J Clin Oncol*. 4: 1592-1597, 1986.
85. Fleming ID, Brady LW, Cooper RM. "Basis for major current therapies for cancer". From *American Cancer Society Textbook of Clinical Oncology*, Second edition. Atlanta, Georgia: p. 128, 1995.
86. Applebaum FR, Sullivan KM, Buckner CD, et al. "Treatment of malignant lymphoma in 100 patients with chemotherapy, total body irradiation and marrow transplantation". *J Clin Oncol*. 5: 1340-1347, 1987.
87. Barlogie B, Alexanian R, Dicke K, et al. "High-dose chemotherapy and autologous bone marrow transplantation for resistant multiple myeloma". *Blood*. 70: 869-872, 1987.
88. Gahrton G, Tura S, Ljungman P, et al. "Allogeneic bone marrow transplantation in multiple myeloma". *N Engl J Med*. 325: 1267-1273, 1991.
89. Schubert MM, Sullivan KM. "Recognition, incidence, and management of oral graft-versus-host disease". *NCI Monographs*. 9: 135-143, 1990.
90. Sullivan KM, Shulman HM, Weiden PL, et al. "The spectrum of chronic graft-versus-host disease in man". In *Biology of Bone Marrow Transplantation* (Gale RP, Fox CF, eds). New York: Academic Press, pp 69-73, 1980.
91. Sullivan KM, Parkman R. "The pathophysiology and treatment of graft-versus-host disease". *Clin Haematol*. 12: 775-789, 1983.
92. Sullivan KM, Deeg HJ, Sanders J, et al. "Hyperacute graft-versus-host disease in patients not given immunosuppression after allogeneic marrow transplantation". *Blood*. 67: 1172-1175

The author would like to thank Dr. Joel Epstein for his guidance and feedback in the preparation of this article.

Ruth Lunn graduated from the dental hygiene program at Algonquin College in 1980. In 1995, she received her instructors diploma from the Ministry of Advanced Education of British Columbia. Ruth has been an instructor in the dental hygiene program at Vancouver Community College since 1987, and with the British Columbia Cancer Agency since 1990. As well, she is an active member of the International Society of Oral Oncology.

Articulation Between Diploma and Baccalaureate Programs Studied

A background paper was commissioned from Karen Wolf, RDH from Antigonish, Nova Scotia, by the Canadian Dental Hygienists Association (CDHA) Council on Education and Research 1996–1997, to research national and international information pertaining to articulation agreements between diploma dental hygiene programs and baccalaureate degree programs. The following represents a summary of her investigation. The full report is available through the CDHA Resource Centre at CDHA Central Office.

69

Articulation is a pact or agreement between two or more institutions and/or associations where they agree to collaborate towards a common goal. When this works efficiently dental hygiene students receive continuity to their educational process giving graduates the ability to not only function competently, but also to adapt to dental hygiene's evolving role within the health care system.

In January 1997 a questionnaire was distributed to one or two educational institutions per province and the response indicated that program co-ordinators agreed that graduates must be prepared to practice in a variety of settings, and in order to accomplish this goal, co-operation would be required from a variety of sectors within the educational community. Marcia Briand, Philadelphia, PA, suggests a systematic approach to articulation whereby participants focus on co-operation, which implies understanding rather than legal commitment. This approach is highly flexible allowing participants to meet individual needs, a type of "custom made" education.

However, a review of the current interprovincial/interstate/international arrangements revealed that there are several barriers to articulation including tuition, geography, and transferability of credits. The most significant barrier was reported to be geography. Proximity to an educational facility which allows for a seamless progression from diploma to baccalaureate degree is unattainable for most. This is where articulation agreements could become the key to a student's educational advancement.

At the present time Canada has 23 diploma dental hygiene programs but only two dental hygiene baccalaureate degree completion programs: University of Toronto (U of T) and University of British Columbia (UBC). Universities in Alberta, Manitoba, and Nova Scotia have degree proposals awaiting funding. In addition to a diploma in dental hygiene from an accredited program, candidates for the degree completion programs must have first year university credits (or equivalent) in Biology, Chemistry, English, Psychology, and an elective tie: Sociology). Applicants from university based diploma programs may be given credit for some or all admission requirements.

These five credits required for admission form part of the total university degree requirements. It should also be noted that at present all provinces (except Ontario) have raised entrance requirements to their diploma dental hygiene programs to include five first year university credits.

A possible scenario for those who wish to broaden their education, could begin by perhaps taking two or three easily transferable courses at a nearby university (30–60 minutes away). For more specific credits, distance education as well as courses over the Internet are possible options available through modern technology. Finally, clinically oriented courses would require participants to travel to degree completion facilities for short term visits. This now poses the question:

Would it be more prudent for dental hygienists to pursue a degree in Dental Hygiene or in a complementary discipline tie: Biology or Psychology) to prepare for career diversification?

Advanced education, beyond the diploma dental hygiene level, requires accessibility, and the future offers this through concepts such as distance learning, satellite curriculum, and streamlining. Our existing programs are addressing the present need, but the future of our profession depends upon mobility before graduation and adaptability after graduation. We must look closely at the stepping stones of articulation and innovative collaboration as we move our profession into the 21st Century.



Karen (Malloy) Wolf graduated from Dalhousie University's School of Dental Hygiene in 1984. She has practiced in general private practice for the past 14 years and continues to do so four days a week. She taught radiology at the Nova Scotia Institute of Technology on a part-time basis for two years. She has delivered oral health presentations to local daycare centres, schools and Brownie groups.

9th Annual Professional Conference

Charlottetown, home of *The Prince Edward*, is nestled on a peninsula at the meeting of three rivers, which form the city's fine harbour. *The Prince Edward* is located at the very tip of this peninsula, affording stunning water views from 70 percent of its rooms. The remainder of the rooms offer a picturesque glimpse of colonial-flavoured Olde Charlottetown, with its wide tree-lined streets and spectacular examples of Victorian architecture. The city is the birthplace of Canada, and by the fluke of history, fell heir to a lively cultural community, based at the Confederation Centre of the Arts, Canada's tribute to its founding fathers.

The Prince Edward is the perfect respite from your busy days of exploring our province and our city. Our property is the centrepiece of the city's waterfront, and boasts our own waterfront park and marina, cosily situated beside the Peake's Wharf complex of quaint shops and restaurants. You can actually take a harbour cruise from our back door! The hotel also boasts a Nautilus-equipped health spa featuring saunas, indoor and outdoor whirlpools, a large indoor pool, and a children's wading pool. One of the finest fitness facilities to be found is yours. *The Prince Edward*, a CAA/AAA four diamond property, is a modern, 211-room hotel whose 10-floor tower dominates the city's skyline.

Please feel free to call us at **902-566-2222** or **1-800-441-1414** to make your reservation.

We look forward to welcoming you to *The Prince Edward*!

CDHA has reserved a block of rooms (\$140 single/\$160 double occupancy) at the CP **Prince Edward Hotel** for conference delegates.

The cut-off date for reserving rooms is **May 19, 1998**.

CALL FOR PRESENTATIONS/DISPLAYS

Community Connections is an initiative which officially began at the 7th Annual CDHA Conference held in Calgary, June 1996. Community Connections is targeted at those dental hygienists with a particular interest in alternative practice settings, community health issues and delivery methods. It is an opportunity to learn about new initiatives under way in other parts of the country and to share information and ideas with colleagues. Community Connections will be held on **Saturday, June 20, 1998 from 9am to 12pm** at the C.P. **Prince Edward Hotel**, Charlottetown, as part of the 9th Annual Professional Conference. All conference attendees are invited to attend and/or share their individual projects in a mini-clinic, table display format.

To request an application sheet for this exciting event, please contact:

CANADIAN DENTAL HYGIENISTS ASSOCIATION

96 Centrepointhe Drive, Nepean, Ontario K2G 6B1

Tel.: **1-800-267-5235** or **(613) 224-5515** E-mail: **info@cdha.ca**

The deadline for submission of completed application forms is **April 30th, 1998**.

ARTICLE:

Bulimia Nervosa: Dental Perspectives

Authors: Jerry Bouquot DDS, MSD, Richard Seime, Ph.D
Journal: Oral Pathology Vol. 9 No. 6

Bulimia Nervosa, a serious and often life-threatening psychological disorder, is seen in up to 13 percent of the female college population. Although many bulimics evidence near normal weight, 19 percent may be classified as either "severely overweight" or obese. Seventy-six percent of 18-year-old women believe they are fat and try to lose weight. Those who suffer from Bulimia participate in voracious eating binges (swallowing up to 20,000 calories of sweet, starchy, unchewed food) followed by self-induced vomiting. These behaviours combined with diuretic use and laxative abuse keep the client's weight relatively normal and therefore they do not seek treatment. Clients feel a loss of control during these eating bouts and feel incapable of being able to stop. They vomit at least once daily averaging twelve times weekly.

As early as 1937, published data addressed tooth changes associated with anorexia nervosa, supporting that eating disorders have been on the scene for many years. True Bulimia is rare and prevails in the white, female population. Three out of four affected women present with serious anxiety disorders like depression and many report childhood abuse. Up to one half of this group are also alcohol or drug dependent. The psychological profile of bulimic clients includes poor self-image, fear of rejection and a craving for approval. They may be secretive, ashamed and guilt-wracked. Treatment success is greater when diagnosed early. Clients who present to the dental office know that clinicians may be able to detect the intraoral changes and may exhibit denial when the subject is broached. Systemic changes include any number of biochemical and endocrine abnormalities, with amenorrhea and dehydration (dry skin/mucous membranes) seen as early symptoms.

As other physiologic symptoms or behaviours associated with this disorder may be difficult to discern (ie. secretive bingeing/purging) detectable changes may only be noted in the oral cavity. The authors cite literature that supports that clients with Bulimia Nervosa seek professional consultation following 7 years of unrestrained eating troubles and that fewer than 1 in 10 ever enter into professional care.

Chemical erosion of the teeth is the most indisputable and invariable dental manifestation of Bulimia and becomes noticeable after approximately 3 years. Other types of erosive and demineralizing patterns (caused by acid diet, sucking candies/lemons, or gastrointestinal troubles) must be ruled out as unrelated to repeated vomiting. Erosion must not be confused with abrasion, this is often induced by horizontal toothbrushing habits. Erosive patterns exhibit smooth

"cupped-out" features and the teeth may be sensitive. The typical pattern of erosion is referred to as perimolysis. The most frequently eroded areas are the lingual surfaces of maxillary centrals and laterals followed by the maxillary cuspid and molar palatal surfaces. Incisal edges may become exceedingly thin, leading to fractures and crazing.

Other clinical oral symptoms of Bulimia include: a chronically sore throat, red soft palate and uvula, petechiae, soft palate stretch marks (from vomit-inducing finger injuries), xerostomia or benign enlargement of the parotid and submandibular glands (often the first symptom). The periodontal/gingival health of the Bulimic client is generally acceptable.

The treatments available are primarily psychiatric/psychological e.g cognitive behaviour therapy. Only 50 percent of those who have received between five and ten years of treatment believe that they are completely recovered. The number of recovered clients is similar regardless of whether or not they sought professional psychiatric treatment. Sadly within four years up to one third will have relapsed.

Recommended dental treatment includes regular preventive appointments including the application of topical fluoride. Restorations may be needed where severe damage has been done and sealants and resins may be applied to desensitize the teeth. None of these however, will stop the progression of the erosion if vomiting continues. Alkali-filled splints (to offset the acidity of the vomitus) worn during an episode may reduce the erosion. The authors also recommend daily use of topical sodium fluoride or a neutral pH sodium fluoride mouthwash. Prior to vomiting, the use of a fluoridated toothpaste may also help. Interestingly the article discourages the brushing of the teeth after an episode as the softened enamel is more prone to toothbrush abrasion. Food and drinks that are acid rich should be avoided and salivary flow increased through the use of sugar-free gum or salivary stimulants.

71





Préparé par le Bureau national de la certification en hygiène dentaire (BNCHD).

Le BNCHD est l'organisme chargé d'élaborer, d'administrer et de noter l'examen national de certification en hygiène dentaire, et d'en diffuser les résultats. L'ACHD en partenariat avec le BNCHD est fière de vous offrir des exemples de questions susceptibles de figurer à l'examen national de certification en hygiène dentaire dans les éditions du journal Probe.

72

1 Wolfgang, 15 ans, compte parmi les clients de l'hygiéniste dentaire depuis trois ans. Lors des derniers rendez-vous, l'hygiéniste dentaire a mis l'accent sur la méthode de brossage de Bass et l'utilisation de la soie dentaire. Elle note maintenant une augmentation de l'inflammation gingivale et des dépôts de plaque dentaire accrus. Quelle action, parmi les suivantes, serait la plus appropriée pour l'hygiéniste dentaire?

1. Aviser les parents de Wolfgang de son état d'hygiène buccale.
2. Collaborer avec Wolfgang à la modification de ses stratégies de soins buccaux à la maison.
3. Traiter Wolfgang, pour une gingivite desquamative.
4. Traiter Wolfgang pour une périocoronarite.

2. Janine, 18 ans, se présente à son rendez-vous avec l'hygiéniste dentaire. Janine dit : « Immédiatement après mon dernier rendez-vous, j'ai eu un gros feu sauvage sur la lèvre inférieure. bien y penser, la même chose s'est produite après mon rendez-vous d'avant. Est-ce une simple coïncidence ou est-il possible que ma visite au cabinet dentaire ait un lien avec l'apparition de mes feux sauvages? » Quelle réponse de l'hygiéniste dentaire, parmi les suivantes, serait la plus appropriée?

1. Il est peu probable que les feux sauvages aient un lien avec vos visites en hygiène dentaire. Nous stérilisons nos instruments et veillons à l'application des mesures universelles.
2. Les feux sauvages sont causés par un virus dormant dans l'organisme de nombreuses personnes. Des facteurs tels le stress, le rayonnement solaire ou une légère irritation peuvent contribuer à le réactiver.
3. Les rendez-vous en clinique dentaire sont parfois suivis de l'apparition de feux sauvages. Il existe plusieurs théories pour expliquer ce phénomène, mais aucune n'a été établie de façon décisive.
4. Les feux sauvages sont causés par un virus. Il y a peu de chances qu'il soit réactivé durant une visite à notre cabinet.

3. Dans quels cas, parmi les suivants, y aurait-il lieu pour l'hygiéniste dentaire d'utiliser des instruments ultrasoniques?

1. Tache intrinsèque sur la mandibule des dents antérieures
2. Tartre très avancé sur des implants en titane
3. Restaurations avec un surplus d'amalgame aux surfaces interproximales
4. Tartre sur les surfaces occlusales de couronnes de porcelaine

4. Miguel Est, 15 ans, se présente à son rendez-vous d'hygiène dentaire. Il présente une quantité modérée de dépôts de tartre, des gencives rouges et des poches généralisées de 4 mm. Il dit utiliser la soie dentaire régulièrement et qu'il se brosse les dents souvent. Quelle action de l'hygiéniste dentaire, parmi les suivantes, est la plus appropriée?

1. Référer le client à un parodontiste.
2. Utiliser l'indice des dents cariées absentes et obturées (CAOd).
3. Utiliser l'indice de saignement gingival (ISG).
4. Procéder à un test de lactobacille.

5. M^{me} Cormier, 70 ans, se présente pour un traitement d'hygiène dentaire. Celle-ci explique qu'elle entreprend sa deuxième semaine de chimiothérapie pour un cancer du sein. Quelle manifestation l'hygiéniste dentaire observera-t-elle le plus probablement dans la bouche de M^{me} Cormier?

1. Arrêt complet de sécrétion de la salive et perte complète du goût
2. Perte complète du goût
3. Augmentation de caries de la racine
4. Diminution de la sécrétion de la salive et inflammation

Clé de réponses et justifications

- (la bonne réponse est indiquée entre parenthèses)
1. (2) On peut s'assurer la collaboration des clients adolescents pour aider à établir les lacunes relatives au besoin d'un programme efficace d'hygiène buccale.
 2. (2) Les « feux sauvages » sont causés par le virus de l'herpès simplex. Après le premier contact avec le virus, une infection latente s'établit et peut être réactivée par des facteurs tels le stress, l'exposition au soleil, les traumatismes, etc.
 3. (3) L'instrument ultrasonique est indiqué pour l'enlèvement du surplus des restaurations.
 4. (3) La vérification du saignement est devenue une mesure d'évaluation importante avant et après le traitement, compte tenu du principe que les tissus sains ne présentent pas de saignement.
 5. (4) L'inflammation de la muqueuse et la xérostomie sont des manifestations orales primaires de la chimiothérapie (les ulcérations et la candidose sont des manifestations secondaires).



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION

L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Êtes-vous travailleur autonome?



Se lancer en affaires est certainement une expérience enrichissante mais remplie de défis. En devenant travailleur autonome, vous devez ainsi protéger vos intérêts professionnels.

Il est important de prévenir les risques associés à vos activités telles que le feu, le vol d'instruments et la responsabilité civile. L'Association canadienne des hygiénistes dentaires (ACHD) en partenariat avec F. Pigeon et Fils Courtiers d'Assurance Ltée, vous offre un programme d'assurance spécifique pour les travailleurs autonomes.

Pour obtenir de plus amples renseignements, veuillez communiquer avec:

F. PIGEON & fils
COURTIERS D'ASSURANCE LTÉE/INSURANCE BROKERS LTD

1-800-430-5407

**PAHDC - UN PROGRAMME D'ASSURANCE POUR LES HYGIÉNISTES
DENTAIRES CANADIENS**

a CIRCLE of Dental Hygiene



Please print clearly Date _____

Customer Name _____

Customer Address _____

City _____ Province _____

Postal Code _____ Phone () _____

10K Yellow Gold ☐ 10K White Gold ☐ Finger Size _____

Two payment options: You can pay in full for ring when ordering, or send a \$50.00 deposit and we will ship your ring C.O.D. for balance owing.

Hygienists ring with genuine amethyst stone 165.00

Shipping costs 10.00

Sub Total 175.00

G.S.T. 12.25

Ontario Provincial Tax
(if you are an Ontario resident) (8%) _____

Total _____

Less Deposit _____

C.O.D. Balance Due

Visa and Mastercard accepted. Please insert card number with expiry date and sign. We will ship Priority Post.

Mastercard # _____

Visa # _____

Expiration Date _____

Signature _____

Please allow five to six weeks for delivery. Please mail order to:

ArtCraft CDHA Dental Hygiene Ring

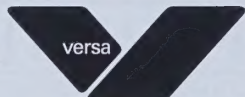
P.O. Box 238, Carleton Place

Ontario, Canada K7C 3P4

Tel: (613) 253-0412 Fax: (613) 253-0407

CREST UNIFORM*

- Complete CREST line available through Versa Uniforms
- Sizing from XS-5XL
- More durable & long lasting
- VISA® soil resistant finish



VERSA UNIFORMS*

To order your catalogue, or for more information:

In Toronto area call (416) 253-3132

Toll Free 1-888-253-3132

Fax: Toronto area (416) 255-6628

Toll Free 1-888-255-6628

Visit us on-line at: www.versa.ca

* AN ARAMARK COMPANY



9th Annual Professional conference

HASSLE-FREE REGISTRATION GUIDELINES

1. PRE-REGISTER FOR THE CONFERENCE.

- Complete the Delegate Pre-Registration form and forward it with your payment (post-dated cheques not accepted) to:

CDHA Conference
96 Centrepoin Drive
Nepean, ON K2G 6B1

- Register before **May 22, 1998** and save \$50! Early bird registrants will qualify to win complimentary registration to the PEI Conference.
- Registrations paid by Visa or Mastercard (\$10 service fee applies), can be faxed to us at (613) 829-2883.

2. MAKE YOUR TRAVEL/HOTEL ARRANGEMENTS.

(See registration form insert for more details.)

3. CHECK DETAILS WHEN YOUR CONFERENCE LETTER ARRIVES.

- Check the spelling of your name
- Confirm you are registered for every event you requested.
- Call Shirley Verheyden, Conference Coordinator at 613-820-0084 if you have any questions with regards to your conference registration.

4. THERE! YOU'RE ALL FINISHED!

- By pre-registering and confirming your hotel and travel arrangements early, you will have saved money, and avoided on-site registration line-ups. Congratulations Early Bird! You've caught the worm!

See preliminary program insert for more information and registration form.

CHARLOTTETOWN, PEI
JUNE 19-21, 1998

NEW PRODUCTS

Cetylite Industries' Zarosen Controls Patient Hypersensitivity



Dentists and dental hygienists can now deliver ultra fast relief to patients with hypersensitivity with Zarosen, a product of Cetylite Industries.

Zarosen controls sensitivity to promote lasting patient comfort through its proven desensitizing agent, Strontium Chloride.

Application of Zarosen is a simple, one-step procedure that requires no mixing or curing and requires no solvent. It is easily applied with a cotton pledget or brush.

Zarosen is indicated for a wide variety of restorative and prophylaxis procedures. In restorative procedures, Zarosen is primarily used after tooth preparation and for post and pin seating. It instantly forms a hard protective film, acting as a thermal insulator, which reduces acid diffusion from cement and minimizes marginal leaks. In prophylaxis use, Zarosen is applied to teeth prior to cleaning, and also is used on exposed sensitive dentin or cementum after scaling.

In addition, Zarosen, which is all-organic formulation, may be used as a cavity varnish and tubuli seal because of its fast-drying, hardening and visibility on application. Zarosen also can be used to control hypersensitivity that might occur during teeth whitening and other cosmetic dental procedures.

For more information about Zarosen, call Cetylite Industries at 1-800-257-7740.

75



CDHA President 2000-2001

Call for Nominations

To fill the role of President of the Canadian Dental Hygienists Association during the 2000-2001 term. This position is part of a four-year commitment on Executive Council beginning in June 1998 as Vice President and ending as Past President in the 2001-2002 term.

Candidates for this position should be able to demonstrate leadership skills through: career responsibilities, past involvement with provincial dental hygiene associations, and participation in the national organization. It is important that the candidate be familiar with the goals, objectives, council structure and organization of the CDHA.

Nominations should be accompanied with a curriculum vitae of the candidate and an outline of the offices held (provincial and national).

**Please submit to Donna Bowes, CDHA President-Elect
by April 30, 1998.**

*Canadian Dental Hygienists Association
96 Centrepointhe Drive
Nepean, Ontario K2G 6B1*

Removal of an Amalgam Tattoo Utilizing an AlloDerm™ Material

By Leanne Carlson-Mann, Dip.D.T., Dip.D.H., Contributing Editor

76

History

A 58-year-old female presented with a large black tattoo in the upper anterior part of her mouth. She found it very evident and upsetting as she had a high smile line.

At the time of the initial oral examination, the client appeared to be in an overall state of good health. Oral hygiene was adequate with no other dental considerations.

Examination

The tattoo was apical to tooth number 12 to 22 (Photo 1). The client had an apical endodontic surgery on #12 and 11, three years previous with amalgam retrograde fillings.

Clinical Features

Tattoos produce a gray to black pigment in the mucosa and are either caused by traumatic implantation of dental amalgam or by graphite from the lead of a pencil. Amalgam tattoos are usually seen on the gingiva, alveolar ridge or buccal mucosa and graphite tattoos are usually seen on the palate. Large amalgam tattoos can be demonstrated radiographically.

Microscopic Features

Brown or black foreign material is present yet does not illicit a giant cell response. Stripping of collagen, reticulin and perivascular connective tissues with particulate granules is a prominent feature and there are a limited number of inflammatory cells.

Diagnosis

Amalgam tattoos must be differentiated from nevi and superficial melanoma. Differentiating tattoos from vascular lesions is performed by applying pressure. In the absence of blanching from the pressure, the diagnosis is amalgam tattoo.

Treatment

A full thickness flap was lifted over the entire amalgam tattoo to include normal tissue on all sides. Massive amounts of residual amalgam were found and a combination of curettes and burs were used to attempt to remove the particles. The pigmented flap was discarded and an AlloDerm™ allograft was sutured over the exposed area with 4-0 silk sutures. The area was covered with COE-pack for one week.

AlloDerm™ grafts are aseptically processed from donated human skin. Cells that are targets for immune response are removed without altering the collagen and extracellular matrix proteins of the dermis.

The resulting immunologically inert allograft serves as an architectural framework that supports the fibroblast migration and revascularization. The basement membrane complex is retained to facilitate epithelial migration and attachment. The AlloDerm™ graft is now a protein framework without any human cells creating an acellular, biocompatible, human connective tissue matrix that constantly integrates in to periodontal tissue. The periodontal pack and sutures were removed at one week. The area was monitored weekly for six weeks. Healing was uneventful.

Discussion

This particular tattoo was removed for cosmetic reasons. They are harmless lesions and no treatment is necessary unless preferred by the client.

References

1. Griether, A.: In *Thoma's Oral Pathology*, 6th Ed., edited by R. J. Gorlin and H. M. Goldman. St. Louis, C. V. Mosby Co., 1970, Vol. II, p. 782
2. Mitchell, D. F., Standish, S. M. and Fast, T. B.: *Oral Diagnosis/Oral Medicine*, 3rd Ed. Philadelphia, Lea & Febiger, 1978, p. 384.
3. Shafer, W. G., Hine, M. K. and Levy, B. M.: *A Textbook of Oral Pathology*, 3rd Ed. Philadelphia, W. B. Saunders Co., 1974, pp. 528-529.



1. Pre-op of Amalgam tattoo.



2. AlloDerm™ graft secured.



3. Six week post-op.

Change is in the air! You can feel the sun's intensity increasing, the days are lengthening, the ground thawing (well in some parts of the nation). Can you notice I love the springtime????

Spring is often equated with a time of reorganization. (For some this process takes more time and energy than for others) But we all get the bug. That pull towards a clean closet, straightened dressers, storage areas where things can actually be found. This first site is just the place for those who use "lists". From NYU's Kriser Dental Center comes an administrators heaven in the form of listings of US and International Dental Schools, DH programs, DA programs, DT programs, Associations, Research Schools and more... You can "clean house" with this site:

<http://www.nyu.edu/Dental/ed.html>

Now for those Dental Hygienists who are full-time educators or for the budding enthusiast this site is a "must see". From the University of Sheffield comes DERWeb with its online bookstore (over 130 books) and an Image Library with "2,000 images...freely available to download for educational and non-commercial purposes." There are also teaching materials where you have access to "10 fully illustrated

periodontology revision notes covering scaling, recession, root planing, deceptions and treatment of periodontal diseases..." This site was developed to "demonstrate how Computer Based Learning (CBL) can be delivered over the WWW." You will access all this wonderful storehouse of information at:

<http://www.derweb.ac.uk/tm1.html>

[the "tm1." is a **one** not an **l**]

Our next address hales from Temple University, Philadelphia, PA School of Dentistry and their Online Learning Program. This Computer Applications in Dentistry site offers a variety of CE courses on computer usage within a practice setting and tuition fees range from \$75-\$125/module.

The address is: <http://www.temple.edu/dentistry/di/ce/>

I hope you find these sites a great addition to your present list of web sites. Enjoy!

I can be reached at: rwolf@atcon.com and all emails are responded to albeit sometimes slow.

77

An Opportunity to Become Involved in Dental Hygiene Research

Research is currently being conducted into the learning needs of practicing dental hygienists. The first stage of this research is to identify problems of practice.

SEND IN YOUR PROBLEMS...

Think back over the last six months and identify an incident, related to dental hygiene practice, that caused you the greatest challenge, pressure or difficulty. Write down, in no more than half a page, the following details about the incident: 1. when and where it occurred (setting); 2. who was involved (roles not personalities); and 3. what was so significant about the incident to cause you problems.

Mail your problem by **Friday, May 29th, 1998** to:

Margaret Wilson, RDH, B.Ed., M.Ed. (Candidate)
Room 2039 Dent/Pharm Building
Department of Oral Health Sciences
University of Alberta,
Edmonton, AB
T6G 2N5

All submissions provided are confidential and will remain anonymous. **Thank you for helping move dental hygiene practice into the next millennium.**

Classified Ad Rates

Fifty (50) words or less, \$26.75 (GST included).

Additional words: \$0.54 per word (GST included).

Closing date for the receipt of copy is approximately one month prior to publication date:

DEADLINE	ISSUE	CIRCULATION DATE
December 10	January/February	January 15
February 10	March/April	March 15
April 10	May/June	May 15
June 10	July/August	July 15
August 10	September/October	September 15
October 10	November/December	November 15

Advertisers' Index

CDHA.....	57 & 73
JOHNSON & JOHNSON	44
ODA/CDA	IBC
PERIO REPORTS	52
PREMIERE	IFC
ROSS DENTAL.....	52
VERSA UNIFORMS.....	74
WARNER LAMBERT	OBC

Tumbler Ridge, BC

The beautiful town of Tumbler Ridge requires a full-time hygienist. Wages and benefits are negotiable. Please call (250) 242-5537 or fax (250) 242-5536.

Uniform Catalogue

Barco Uniforms are now available here in Canada. Comfortable Casual California styling in Visa fabric for easy care. Competitive pricing in Canadian funds. Call between 10:00 AM and 5:00 PM Eastern time Monday through Friday. Fax anytime.

Call or fax today for your free catalogue at 1-888-820-0031.

Earn a Full Time Income, Part-Time

Independent Oxyfresh distributor seeking enthusiastic dental team members to introduce product lines to dental offices. Potential for lucrative commissions. For more information visit www.oxyvision.com or call voice mail (905) 608-2517 or 1-800-328-9643 and leave message.

Moosomin, Saskatchewan

Hygienist required for maternity leave. Position available February 1, 1998 to September 1998, minimum 4 days per week. This may lead to a permanent part-time position. For further information, please contact Dr. P. Biglow-Lecomte or Marie Wiebe at (306) 435-3080.

Employment Wanted

Bilingual Registered Dental Hygienist (*New Grad*) is seeking employment in the province of Ontario. Quality preventive care and continued learning are guaranteed. Salary is negotiable. Call Sophie at (705) 855-3861 or fax (705) 855-8458.

Chilliwack, British Columbia

Dr. H.I. Olson's office has an opportunity for a friendly, energetic and enthusiastic hygienist willing to work with two dentists and one other hygienist in providing quality preventive dental care. Please call (604) 858-2341 or Fax (604) 858-1728.

Executive Director Position, Nova Scotia

The Nova Scotia Dental Hygienists' Association invites applications for the contracted term position of Executive Director. NSDHA is a nonprofit organization with 400 members affiliated with The Canadian Dental Hygienists Association.

The selected candidate will be responsible for the advancement of the association's mission and goals during the duration of its restructuring phase. The Executive Director will report to NSDHA Executive Board.

The successful candidate should have a background in oral health or a related health field, be computer literate, and have exceptional interpersonal and administrative skills. The selected applicant must be able to work independently and to achieve positive results.

Salary will be commensurate with experience and qualifications. **Applications will be reviewed April 30, 1998.** Interested candidates are encouraged to submit their curriculum vitae and the names of three references to:

Executive Director Search Committee
c/o Nova Scotia Dental
Hygienists' Association
P. O. Box 3593
Halifax South,
Nova Scotia B3J 3J2

Northwest Territories

CANADIAN LICENSED DENTAL HYGIENIST

Position for full-time dental hygienist available in a well established practice in the busy city of Yellowknife. Modern, well equipped, fully computerized dental office with excellent support staff.

Please send resume to: Box 2615, Yellowknife, N.W.T. X1A 2P9 or Fax (867) 873-5032

Kimberly, British Columbia

Want a slow pace out of the rat race?

Want an affordable wonderful lifestyle?

Needed: one great hygienist who has these desires.

Please call (250) 427-4646

Be part of the professional team

May 7 - 9, 1998

Metro Convention Centre



ODA/CDA National Convention

An invitation to all dental hygienists from the ODHA

Don't miss this professional development experience for the entire dental care team!

Here's why you should attend:

- low registration fees — \$95 for members / \$110 for non-members
- an opportunity for the dental team to get together, socially and professionally
- a dental hygiene track with outstanding speakers and topics covering a wide range of issues and trends
- a chance to network and interact with your colleagues

Some topics of interest to dental hygienists:

- Employer/employee relations
- High quality, composite dentistry for the practical dentist
- Metal free restorations for posterior teeth
- The changing world of preventive, restorative and esthetic dentistry
- The latest in dental imaging
- Facial esthetics, orthodontics and orthognathic surgery
- Managing patients with multiple antibiotic allergies, valvular heart disease, blood borne infection
- Nutrition: a new look at diet and dental health
- Approaches to eating disorders for dental health professionals
- All about oral pathology and oral medicine

...and much, much more. There's something for everyone!

Registration highlights:

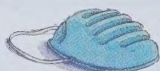
- A preliminary program will be sent to all dental offices and to anyone interested in participating
- Registration forms for the convention and hotels are included in the program
- Registration forms are also available through the CDHA and your provincial association
- Conference rates and blocks of rooms have been arranged at the Crowne Plaza Toronto Centre, Holiday Inn on King St., SkyDome Hotel and the Royal York Hotel
- As official carrier for the convention, Canadian Airlines is offering special rates

WATCH FOR MORE INFORMATION IN DENTAL OFFICES, AND THE ODHA NEWSLETTER

WHILE YOU CAN'T BE THERE EVERY DAY TO FIGHT GINGIVITIS, LISTERINE CAN.



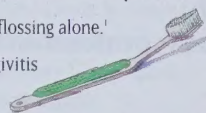
It's no secret that many people have trouble practicing proper dental care between check-ups. This of course,



increases the chance

of gingivitis. But now with Listerine,* you can give your patients some additional help in the fight against gum disease. The fact is, Listerine has been proven to reduce the development of gingivitis[†] by almost 36% over brushing and flossing alone.¹

And while Listerine controls gingivitis as effectively as chlorhexidine, it doesn't stain or discolour teeth.¹ Which means Listerine can become



part of your patient's everyday dental care routine between visits. It simply requires a 30 second rinse, two times a day. It's fast, easy and

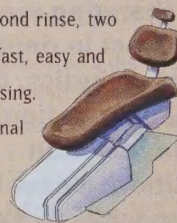
works synergistically with brushing and flossing.

So give your patients some additional help in the day-to-day fight against gingivitis.

Give them Listerine.

Ask your dental distributor for information on 1.5L with free pump for operatory use.

For more information, please call 1-800-683-1650.



[†] "Listerine helps reduce gingivitis (minor inflammation of the gums caused by plaque above the gumline) when used in a conscientiously applied program of oral hygiene and dental care." CANADIAN DENTAL ASSOCIATION²

LISTERINE ANTISEPTIC -ANTIPLAQUE ANTINGIVITIS - MOUTHWASH INDICATIONS: Helps reduce gingivitis (minor inflammation of the gums caused by plaque above the gumline) when used in a conscientiously applied program of oral hygiene and dental care. Kills the germs that cause bad breath, plaque, gingivitis and sore throats due to colds. **CAUTIONS:** Keep out of reach of children. Do not swallow. Not to be used by children under 12 years of age. In case of accidental ingestion, contact a Poison Control Centre or doctor immediately. **DOSAGE:** Rinse full strength with 20 mL for 30 seconds twice a day. **MEDICINAL INGREDIENTS:** Eucalyptol 0.091% w/v, Thymol 0.063% w/v, Menthol 0.042% w/v. **NON-MEDICINAL INGREDIENT:** Alcohol. **NOTE:** Cold temperatures may cloud this product, its efficacy will not be affected. **SUPPLIED:** Original Listerine: Clear, amber liquid available in bottles of 250, 500, 750, and 1,000 mL. Cool Mint Listerine: Clear, blue, cool mint flavoured liquid available in bottles of 250, 500, 750, and 1,000 mL. Fresh Burst Listerine: Clear, green, mint flavoured liquid available in bottles of 250, 500, 750, and 1,000 mL.

* Gingivitis was evaluated using the Modified Gingival Index. ©TM Warner-Lambert Company Warner-Wellcome Inc, use Scarborough, Ontario M1L 2N3.

1. Overholser CD et al. Comparative effects of two chemotherapeutic mouthrinses on the development of supragingival dental plaque and gingivitis. *J Clin Periodontol* 1990;17:575-579.

2. Data on file, 1995.

PAAB

LISTERINE FIGHTS GINGIVITIS WITHOUT STAINING



The Canadian Dental Hygienists Association

dent

PROBE

JUN 04 1998
University

JOURNAL

de l'Association canadienne des hygiénistes dentaires

May/June 1998 vol. 32 no. 3



Telehealth Technology: A New Medium for In-Service Education

CDHA Policy Framework for Dental Hygiene Education in Canada

Program Update for the 1998 Canadian Dental Hygiene Program Island

DENTAL LIBRARY
UNIVERSITY OF TORONTO
124 EDWARD ST.
TORONTO M5G 1G6
ONTARIO, CANADA

No dentifrice offers more protection

CARIES
CARIES
CALCULUS
CALCULUS
PLAQUE
PLAQUE
GINGIVITIS
GINGIVITIS

Colgate Total*
A Technological Advance in Preventive Dentistry.

Colgate Total is the first and only dentifrice to go beyond caries protection to provide long-lasting protection against plaque, calculus and gingivitis¹. Because of the unique combination of 0.3% Tricosan and the polymer Gantrez, only Colgate Total dentifrice continues to provide a sustained antimicrobial effect for up to 12 hours after brushing². In fact, the benefits of Colgate Total dentifrice in reducing microbial plaque and gingivitis have been established in over 16 independent clinical studies worldwide. The long term studies show an average 45% reduction in plaque, 57% reduction in gingivitis (plaque and gingivitis severity index) and 25% reduction in calculus. That's why Colgate Total is the first and only dentifrice to earn the Canadian Dental Association's seal of approval for gingivitis reduction and in helping to prevent tooth decay.



So if your patient requires the additional protection, recommend clinically proven Colgate Total.
To order Colgate Total, call Colgate Oral Pharmaceuticals at 1-800-255-3756

1, 2 data on file *TM Reg'd Colgate-Palmolive Canada Inc.

Keeping Abreast of Health Care Changes

By Maria Perno McKenzie, RDH, M.S.

The following guest editorial is an excerpt from the President's Message in ADHA's newsletter Education Update, Fall/Winter 1997-98, Volume 17, Number 1.



Maria Perno McKenzie, RDH, MS

Health care delivery is changing rapidly in the United States. Because of escalating health care costs, efforts have been made to contain costs while maintaining quality of care in health care delivery. This has sparked the creation of "managed care", an approach to health care delivery that dominates the marketplace today. Managed care focuses on prevention because prevention saves money. It also evaluates outcomes of treatment and patient satisfaction. ADHA

is keeping pace with the changing health care delivery system. The Board of Trustees has adopted a position paper on managed care, and the June 1997 House of Delegates adopted a number of relevant policy statements.

ADHA created a Special Committee on Parameters of Practice in 1994. The original intent was to create guidelines (or parameters of practice) for dental hygiene. After careful deliberation and much expert opinion, ADHA decided that providing information, or evidence reports, to members was a more appropriate action, as there is apparently no concrete evidence that guidelines influence behaviour. Instead, the committee focussed on the development of tools for promulgating the evidence and outcomes information which may include guidelines, client and practitioner educational materials, position papers, and outcomes assessment tools. The committee was subsequently dissolved and the Council on Research was identified as the association body which would continue efforts in this area.

The Board of Trustees outlined a number of association needs and responsibilities. The need to document dental hygiene interventions for specific oral conditions and patient populations was noted. It was also recommended that clinical decision-making should be outcomes-based and that dental hygiene care should be evidence-based and patient-centered. As a profession, we must demonstrate

the components of a discipline which include our unique science (or body of knowledge) and our practice. It is the responsibility of the association to assist patients and practitioners in meeting these needs.

As a result of the special committee's investigation, at the 1997 Annual Session in Atlanta the ADHA House of Delegates adopted PR6 which states "ADHA advocates evidence-based, patient-centered dental hygiene practice". The ADHA 1997-2000 Strategic Plan contains a strategy to "promote research relative to evidence-based, patient-centered dental hygiene practice". Action plans include "developing research proposals and seeking funding sources to support research relative to evidence-based, patient-centered dental hygiene practice" and "publishing a bibliography, articles, and other resource materials relative in ADHA information forums such as the *Journal of Dental Hygiene*, *Access*, the ADHA web site, and *Education Update*". ADHA is also planning a Dental Hygiene Research Workshop in conjunction with the 1998 Annual Session in New Orleans on evidence-based paradigms and theory development.

“As a profession,
we must demonstrate
the components of a discipline
which include our unique science
(or body of knowledge)
and our practice.”

So, what does this all really mean? It means that clinical decision-making should be based on research and evaluated by established outcomes (consequences or results). They can range from clinical outcomes to patient satisfaction, or anything in between. Patient-centered care places the patient as "the client" at the focal point of our attention.

Patients should be enabled to take an active role in decisions that affect their health. The relationship between a health care provider and patients has changed over the years. Access to information about treatment options has contributed to increased participation by patients in making health care choices and has changed the relationship between patient and caregiver from one of dependency to

Keeping Abreast of Health Care Changes (continued on page 110)

Maria Perno McKenzie, RDH, M.S. holds an adjunct faculty position in the Department of Dental Public Health Hygiene at the University of California, San Francisco. She also practices dental hygiene in a general and periodontal office in San Francisco. Ms. McKenzie is currently serving as 1997-98 ADHA President. Maria will be presenting at the upcoming PEI Conference in June.

Take **Action** against cavities.



INTRODUCING REACH[®] ACT[®] ANTI-CAVITY TREATMENT: CLINICALLY PROVEN TO FIGHT CAVITIES BETTER THAN BRUSHING ALONE.

- Patented exact dosage meter dispenses the correct amount of fluoride – more economical: no spilling, no waste
- Alcohol-free: safe for children and won't sting
- Three great flavours available

One more product you can safely recommend. From Johnson & Johnson, the name professionals have trusted for generations.

Johnson & Johnson INC.

PROFESSIONAL SERVICES DEPT.
QUALITY, INNOVATION AND TRUST IN ORAL CARE

*Trademark of Johnson & Johnson used under license.
© Johnson & Johnson 1998

"Recognized by
the Canadian Dental
Association"



83 GUEST EDITORIAL

Keeping Abreast of Health Care Changes
By Maria Perno McKenzie, RDH, M.S.

87 PRESIDENT'S MESSAGE

Time for Reflection
By Judy Clarke, Dip.D.H.

CDHIP INSURANCE PLAN/ RAHDC RÉGIME D'ASSURANCE

- 86 CDHA has your future covered.
- 119 L'ACHD a votre avenir assuré.

88 NEWS

92 PRACTICE PROFILE

Hygiene Excellence
Featuring Nancy Adair, RDH, B.A.

SELF-ASSESSMENT TEST/ EXAMEN AUTO-ÉVALUATION

- 94 Sample questions from the National Dental Hygiene Certification Examination.
- 96 Exemple de questions du Bureau national de la certification en hygiène dentaire.

97 FEATURE ARTICLE

Telehealth Technology:
A New Medium for In-Service Education
By Eunice M. Edgington, Dip.D.H., B.Sc.D.(D.H.),
and Janice F.L. Pimlott, Dip.D.H., B.Sc.D.(D.H.), M.Sc.

FEATURE REPORT

- 105 CDHA Policy Framework for Dental Hygiene Education in Canada

102 ABSTRACT

Lidocaine Patches Control Pain in Hygiene Procedures, Serving as Option to Injections
Reviewed by Carol Barr Overholt, Dip.D.H.,
Contributing Editor

103 BOOK REVIEW

Urgent Care in the Dental Office
Reviewed by Kathleen Adams, RDH

114 CASE STUDY

The Use of Tongue Cleaners in the Treatment of Halitosis
By Leanne Carlson-Mann, Dip.D.T., Dip.D.H.
Contributing Editor

85

CONFERENCE INFORMATION

- 115 General Information
- 116 CDHA Conference Program Update

INFORMATION

- 95 How Much Insurance is Enough?
By Terry Kennedy, Sunlife of Canada
- 101 Continuing Education Calendar
- 103 Healthcare Book Listing
- 104 Probing the Net
By Karen Wolfe, Dip.D.H.
- 107 Advertisers' Index
Probe Advertising Rates
- 108 CDA Member Bulletin:
Dental Unit Waterlines
- 111 New Products
- 112 Midland Walwyn: Turning Investment Anxiety into a Financial Opportunity
- 118 Classifieds

On the Cover: Kelly O'Neill as Anne of Green Gables Photo by: Barrett & MacKay

MANAGER, COMMUNICATIONS SERVICES: Angela J. Whelan, B.A.
EXECUTIVE DIRECTOR: C.M. Worobey, Dip.D.H.
EDITORIAL ADVISOR: K. Edwards, M.A.

CONTRIBUTORS

Carol Barr Overholt, Dip.D.H.
Leanne Carlson-Mann, Dip.D.T., Dip.D.H.
Karen Wolfe, Dip.D.H.

EDITORIAL BOARD

Laura MacDonald, Dip.D.H., B.Sc.D., M.Ed.
B. Fortune, Dip.D.H.
Jane Waites, Dip.D.H.
L. Guest, Dip.D.H., B.H.Ed.
R. Lunn, Dip.D.H.

DESIGN: Edels-Marcotte

Published six times a year by the Canadian Dental Hygienists Association, 96 Centrepointe Drive, Nepean, ON K2G 6B1
Tel (613) 224-5515

Canada Post Publications Mail Registration No. 5793

CANADIAN POSTMASTER: Notice of change of address and undeliverables should be sent to:

Canadian Dental Hygienists Association
96 Centrepointe Drive,
Nepean, ON K2G 6B1

Subscriptions \$69.55 (GST Included) in Canada, \$110.00 Cdn for US and \$115.00 Cdn elsewhere. Fifty cents per issue is allocated from membership fees for journal production. All statements are those of the authors and do not necessarily represent the CDHA, its Board, or its staff.

ADVERTISING AND SUBSCRIPTIONS:

Keith Health Care Communications
1382 Hurontario St.
Mississauga, ON L5G 3H4
(905) 278-6700

CDHA 1998
6176 CN ISSN 0 834-1494
GST Registration No. R106845233

CDHA CENTRAL OFFICE STAFF

Executive Director: Carol Matheson Worobey
Manager, Communications Services: Angela J. Whelan
Manager, Finance and Administration: Monique Belleau Rock
Manager, Member Services: Sandra VanWart
Member Services Assistant: Louise Lalonde
Administrative Assistant: Shelly Rochon
Receptionist: Francine Fortin

All CDHA members are invited to call the CDHA's Member Line toll-free, with their questions/inquiries:

1-800-267-5235, Fax (613) 224-7283

Internet: <http://www.cdha.ca> E-mail: info@cdha.ca

We look forward to serving you.

The Canadian Dental Hygienists Association's Journal, *Probe*, is the official publication of the CDHA. The CDHA invites submissions of original research, discussion papers, and statements of opinions pertinent to the dental hygiene profession. All manuscripts are refereed anonymously. Contributions to *Probe* do not necessarily represent the views of the CDHA, nor can the CDHA guarantee the authenticity of the reported research. Copyright 1998. All materials subject to this copyright may be photocopied for the non-commercial purpose of scientific or educational advancement.

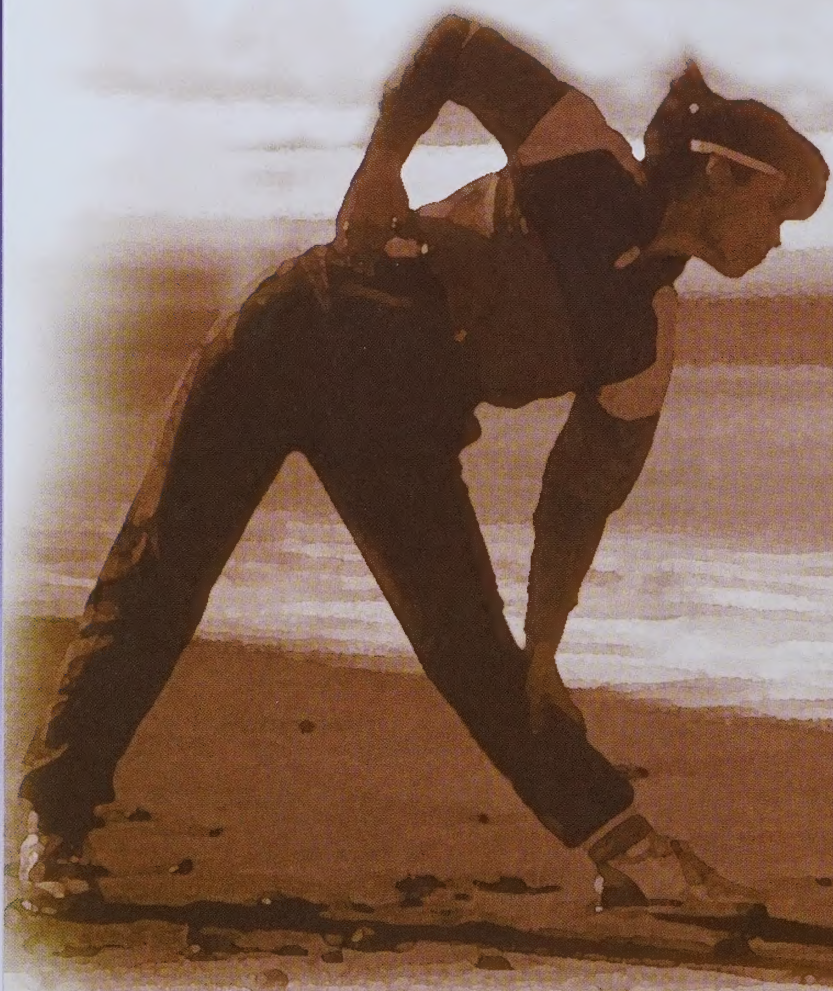


THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION
L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

CDHA has your future covered.

Accidents do happen, that's why the Canadian Dental Hygienists Insurance Plan (CDHIP) offers all the coverage you will need. CDHIP is specifically designed to meet the needs of today's family in the event of a tragedy, an unexpected injury or uninsured medical costs.

In partnership with Sun Life of Canada, the plan will meet your insurance needs - today and tomorrow.



For more information
or additional
coverage, please call:



Sun Life

1-800-669-7921 or
(416) 408-7390

Time for Reflection

By Judy Clarke, Dip.D.H.

If anyone had suggested to me at my 1987 Dental Hygiene graduation that ten years later I would be the CDHA President, I would have surely told them to quit being foolish! At that time my priorities were planning a holiday, finding a job and buying a car (your typical post-university, I can finally have a "life after school" attitude) — volunteering for my profession was the farthest thing from my mind. However, due to the positive influence of some key individuals early in my career, my perception of being an "active" member of my profession was forever altered. I began to understand that being "active" goes far beyond just reading the newsletters and grumbling when things are not going well — it was a paradigm shift from being "informed" to being "involved". So it would seem the die was cast, my fate was sealed and the rest, as they say, is history. When I hand over the Presidential Pin to the 1998 incoming CDHA President, Donna Bowes in June, not only will that bring closure to a very important part of my professional life, but as well, it will conclude another chapter in the life of CDHA.

Like all things in nature, CDHA is a vital, "living" entity that has been and continues to move through various phases as it develops and matures. Since its "birth" in 1964 and during its "infant" years, the first few CDHA boards were extremely busy. They were charged with the responsibility of guiding the association from its inception to becoming operational and recognized by both the public and Canadian dental hygienists, as the national organization representing the profession. These tasks were not without inherent challenges, but the founding members prevailed and their dream was transformed into reality.

With a foundation in place and more and more provinces becoming constituent members, the association moved through its "childhood". The board began to focus its efforts more on the issues of the time, including hiring support staff and opening up a Central Office. When the board restructured in the late 1980s into its current working council format, it became a "teenager" whose years were highlighted by increased confidence in its abilities to affect change as well as a shift to being more proactive in its activities. The board began to set lofty goals, tackle complex issues and develop timely, visionary position statements. The accomplishments and objectives that CDHA achieved with the present board structure have been numerous and significant.

In earlier President's Messages I have profiled a number of initiatives that the directors have undertaken since last June, culminating in the development of a completely new Mission, Goals for the organization and structure for the board. We strongly believe the new format will provide a true collective voice for the profession that will guide us into

the next millennium. By all accounts, CDHA is ready for "adulthood" and all the adventures that will accompany it. So, as I alluded to in my opening, the focus of my year has been to bring closure to this "teenager" phase and pave the way for a smooth transition to a new way of thinking and operating.

As CDHA begins this new phase, many of the projects we have started, such as support for self-regulation and a national communications strategy, will continue. At the same time, the board will also be embarking on new directions with regard to dental hygiene education and direct reimbursement for dental hygienists through a national dental hygiene claim form and system of billing. The next few years will certainly be interesting as we endeavour to ensure a strong future for the profession.

In conclusion and upon reflection, I have come to realize that my tenure with CDHA, especially on the Executive Council and as President, has been a tremendous gift. It has provided me with abundant opportunities for personal and professional growth that could not be accessed in any other forum. I was blessed to have worked with some extraordinary colleagues from across Canada, as well as internationally, whose passion for dental hygiene was inspiring. All of CDHA's successes and accomplishments could not have been possible without the incredible commitment and dedication of the entire Board of Directors and our Central Office staff. Their faith, respect and encouragement was a great source of strength and encouragement for me and it was a honour to have represented you within and outside the profession — we made a *great team* and I truly hope that Donna's term as President will be as fulfilling and memorable. Lastly, to all CDHA members — I thank you for the privilege of being your President.

Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishment toward organizational objectives. It is the fuel that allows common people to attain uncommon results. Simply stated, it is less me and more we.



Judy Clarke is a 1987 graduate of the University of Alberta Dental Hygiene Program. She has worked full-time in private practice over the past ten years and continues to do so in Edmonton, Alberta.

National Communications Program Report for the Dental Hygiene Profession

88



(Left to right) Members of the National Planning Committee are Donna MacDonald (NSDHA), Jessica Dubé representing Ginny Cathcart (BCDHA), Angela J. Whelan (CDHA), Judy Clark (CDHA), Fran Richardson (CDHO), Dianne Landry (NDHCB), Elaine Kinchen (MDHA) and Josephine Juchli (ADHA).

Absent from photo is Carol Matheson Worobey (CDHA) and Diane Kozachuk (ODHA).

On the eve of 50 years of dental hygiene practice in Canada, CDHA is preparing to celebrate our profession. Creative juices have been flowing in the dental hygiene profession as The Canadian Dental

Hygienists Association (CDHA) in partnership with members of the regulatory and provincial associations are developing a National Communications Program for the dental hygiene profession.

As a member, you may recall word of a national dental hygiene image workshop held in Ottawa last February 1997. The objective of the workshop was to explore the image we wanted to create of dental hygienists in Canada today, and to develop a series of key or core messages to support this image. A strong desire to develop a national communications program, driven by the CDHA, which would help foster the consistent image across the country — while allowing for provincial adaptation — was the key outcome of this workshop.

At the direction of this workshop, a National Planning Committee was established to initiate these recommendations. After a thorough screening process, CDHA has selected Delta Media Inc., a bilingual Ottawa-based communications/public relations firm, to assist in developing and implementing this National Communications Program.

As part of the process, an entire continuum of activities will be undertaken: from research towards the development of a strategy, to the development of action plans, to the execution of those plans and the evaluation of their impact. CDHA and the National Planning Committee members are moving forward in this endeavour to provide strong support to the dental hygiene profession. We hope to provide additional information on these new and exciting communications initiatives shortly.

1998 CDHA/ADHA Liaison Meeting in Ottawa

The Canadian Dental Hygienists Association (CDHA) and the American Dental Hygienists' Association (ADHA) 1998 liaison meeting, hosted by Judy Clarke, was held in Ottawa, March 21 and 22, 1998. This annual meeting continues to be most valuable for dental hygiene in North America as it provides both national associations an opportunity to share information about the events happening in both countries which continue to shape our profession. NAFTA, dental hygiene education and accreditation, self-regulation, web site development, communication programs and oral care initiatives were all topics of discussion during the two-day session.



(Back to front)
Carol Matheson Worobey (Executive Director of CDHA), Donna Bowes (President-elect of CDHA), Stanley Peck (Executive Director of ADHA), Beverly Whitford (President-elect of ADHA), Maria Perno McKenzie (President of ADHA) and Judy Clark (President of CDHA).

Share the strength of the world's largest mutual fund company



Fidelity Investments®

The World's Largest Mutual Fund Company

Over 12 million investors like you share the strength of Fidelity Investments. In fact, we've been helping investors achieve their goals for over 50 years. Today, as the world's largest mutual fund company with more than \$625 billion* in assets, we have the resources you need to help you build your future, step by step. And the global expertise to help you meet your goals, with confidence.

** As of November 30, 1997. Read the important information contained in a mutual fund's prospectus before investing.*

Please send me more information on
Fidelity Investments today.

NAME _____

ADDRESS _____

CITY: _____

PROVINCE: _____

POSTAL CODE: _____

TELEPHONE (BUS.): _____

TELEPHONE (RES.): _____

I AM A CLIENT OF MIDLAND WALWYN: _____

YES ☐

NO ☐

MY ADVISOR IS: _____

CDHA 01/98

NTL 01/98

MAIL  POST

Canada Post Corporation

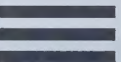
Société canadienne des postes

Postage paid Port payé

if mailed in Canada si posté au Canada

Business Reply Réponse d'affaires

0103364699 01



0103364699-MSJ2W5-BR01

ATT: AFFINITY SERVICES
MIDLAND WALWYN
PO BOX 19009 STN BRM B
TORONTO ON M7Y 3M9

Dental Hygienists take on the Leading Cause of Oral Disease During April's Dental Health Month

The Canadian Dental Hygienists Association (CDHA) took part in Dental Health Month, held every April, by targeting increase awareness on the oral health issue of gingivitis and by providing continued support for the practice of dental hygiene.

A majority of Canadians will experience gingivitis in their lifetime and, if not properly cared for, can develop periodontal (gum) disease as a result. "We know that many adolescents and adults pay little attention to the symptoms of gingivitis. They don't take it very seriously," says CDHA President Ms. Clarke, "because it may not be painful and appears to resolve itself after a few days. CDHA's involvement in Dental Health Month was to affect this general lack of concern. "The fact is, when gingivitis is left unchecked, it can have serious implications," stated Clarke.

"The remedy to gingivitis is within everyone's reach," indicated Ms. Clarke. "Proper brushing technique is critical and the new electric toothbrushes, like Braun Oral-B's plaque remover, make it easier than ever to remove the plaque and bacteria that cause gingivitis. We see real improvements," voiced Ms. Clarke, "in our clients who make the commitment to upgrade their daily oral hygiene routine with effective toothbrushes and dental floss."

A public awareness program was launched to communicate these messages which included TV, radio and media spots in partnership

with Braun. Braun has been supportive of dental hygiene and with the help of Harbinger Communications Inc., a marketing communications company with expertise in oral care, established a new opportunity to work together during April to reach the Canadian public. All four CDHA Executive members were interviewed and accepted media invitations as a result of this program.

Eliminate gingivitis with the help of your hygienist. Schedule a visit for a consultation on necessary changes to your oral care habits. The result will be better oral health and a much improved long-term outlook.



CDHA Executive Council (from left to right) Sue MacIntosh (Past President), Judy Clark (President), Donna Bowes (President-elect) and Darlene Thomas (Vice President).

89

Le Code de déontologie de l'ACHD

La version française du *Code de déontologie* pour la profession d'hygiéniste dentaire distribué par l'Association canadienne des hygiénistes dentaires (ACHD), révisé en juillet 1997, est maintenant disponible pour la première fois en français pour tous ceux et celles qui désirent en obtenir une copie. *Le Code de déontologie* renferme les valeurs et les obligations propres à la profession d'hygiéniste

dentaire. L'ACHD invite particulièrement la communauté francophone à se servir de cet outil de référence au cours de leur pratique. Veuillez communiquer auprès du bureau central de l'ACHD au 1-800-267-5235 pour votre copie. Par ailleurs, vous pouvez envoyer toutes commandes à l'adresse électronique suivante : info@cdha.ca

odha
Ontario Dental Hygienists' Association

A Resource Guide for Dental Hygienists in Non-Traditional Settings

The Ontario Dental Hygienists Association (ODHA) has developed a Resource Guide for Dental Hygienists in Non-Traditional Settings. The publication was developed by the ODHA's Alternative Practice Setting Task Force in response to members' interest in dental hygiene entrepreneurship. The information provided in the manual is merely a guideline for dental hygienists who may want to establish a distinct dental hygiene business.

The resource guide is an ODHA member benefit, however, members of the Canadian Dental Hygienists Association (CDHA) in other provinces may purchase a copy of the guide at a cost of \$25 (including taxes, shipping and handling). CDHA members may obtain a copy by calling the ODHA office at (905) 681-8883.

GET YOUR PROVINCE MOTIVATED TO MOVE!

A CDHA Workshop Motivation to Move: Tools for Professional Growth

CDHA invites you to facilitate or participate in a *Motivation to Move Workshop*.

At the June 1997 CDHA conference in Ottawa, representatives from the provinces were invited to participate in a "Train the Trainer" workshop for *Motivation to Move — Tools for Professional Growth*. The workshop materials were reviewed and clarified and the participants were encouraged to start planning for their first presentation.

The Canadian Dental Hygienists Association is now proud to present the national workshop, *Motivation to Move*. The intent of the workshop series is to provide an opportunity for self-assessment as well as to provide an introduction for the participants to tools for professional growth which can be applied to both professional and personal lives. Members of all provincial Dental Hygienists' Associations will enjoy and benefit from this workshop.

The workshop provides a practical, non-threatening, and user-friendly way for dental hygienists to use the *Practice Standards* document, as well as offering an opportunity for self-assessment and discussion. The four "Toolshops" are designed to increase participants awareness as to how they can make changes in their lives, providing motivation to grow both professionally and personally. One of many benefits of this workshop is that the group, or members of the group, can continue as a dental hygiene "study club".

Workshop facilitators are requested to notify CDHA's Central Office of scheduled workshops and to forward details of utilization levels and evaluations to enable assessment and suggest revisions to the workshop in the future.

For more information on the *Motivation to Move* workshop, please contact CDHA Central Office at 1-800-267-5235.

Get Motivated to Move.

To schedule your workshop, first contact your provincial facilitator(s) as listed.

PRINCE EDWARD ISLAND

Karen McGuigan
4 Spruce Street
Charlottetown, PEI C1A 3G6

NEWFOUNDLAND

Cindy Holden
P.O. Box 39074
St. John's, NF A1E 5Y7

Pam Vokey
P.O. Box 205
Gander, NF A1V 1W6

NOVA SCOTIA

Patricia Grant
3 Linden Lane
Halifax, NS B3R 1N1

NEW BRUNSWICK

Sharyn Milroy
85 Oakmoor Terrace
Moncton, NB E1G 1T4

ONTARIO

Lynda McKeown
194 Varsity Row
Thunder Bay, ON P7B 5P1

Jenny Thomas
2759 Salina Street
Ottawa, ON K2B 6P8

MANITOBA

Mickey Wener
6 Exmouth Boulevard
Winnipeg, MN R3P 0C1

SASKATCHEWAN

Noel Selinger
14 Langley Cres.
Regina, SK S4S 3V6

ALBERTA

Gloria Roth
4 Storrs Crescent South East
Medicine Hat, AB T1B 4J4

BRITISH COLUMBIA

Cindy Ewan
270-9600 Cameron Street
Burnaby, BC V3J 7N3

Ginny Cathcart
106-3788 West 8th Avenue
Vancouver, BC V6R 1Z3



Get Motivated to Move.

1997 CDHA/Colgate Community Health Grant Recipient

Congratulations are extended to Virginia Perry, RDH, as the 1997 recipient of the CDHA/Colgate Community Health Grant.

Virginia Perry is an independent Dental Hygienist, who has formed her own business. She has been working since to provide basic oral screenings, examinations, preventive/therapeutic treatment and referrals to long-term care facilities and retirement homes. Virginia has found her experience extremely positive to date.

As recipient of the CDHA/Colgate Community Health Grant, Virginia will be featuring Oral health needs assessment of long-term care facilities and nursing homes. Her main objective is to identify

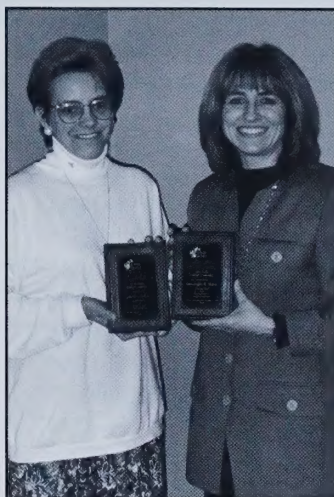
long-term solutions to this problem. "Hygienists are presented with the opportunity to demonstrate the value of their role in identifying a need for treatment before disease becomes acute. By gathering information to define the areas of greatest need both in and outside nursing homes, and observing the obstacles one would face in treating this population group, we can explore the opportunities for dental hygienist to ergonomically and cost-efficiently assess, plan, implement and evaluate," says Perry.



Virginia Perry, RDH

The CDHA/Colgate Community Health Grant was established to support Canadian dental hygienists engaged in community health projects that promote oral health and wellness. A grant of \$3,000 is awarded annually to a Canadian dental hygienist who presents a new community health initiative that is not associated with any other dental health delivery program. Preference is given to community projects that are relevant to the discipline of dental hygiene and the mission and objectives of the CDHA.

CDHA Staff Receives Ten-Year Service Award



Sandra VanWart, Manager of Member Services and Monique Belleau Rock, Manager of Finance and Administration were each presented with a Ten-Year Service Award in appreciation and recognition of their contribution over the years to The Canadian Dental Hygienist Association (CDHA). The award was presented during the CDHA Board of Directors January 1998 meeting in Ottawa.

91

Perio REPORTS

Bimonthly publication designed for dentists and dental hygienists concerned about their patient's periodontal health. Each issue summarizes periodontal research of specific interest to clinicians. Easy to read format keeps you up to date on the latest research findings.

Journals reviewed for **Perio REPORTS** include:

Journal of Periodontology
Journal of Clinical Periodontology
Journal of Periodontal Research
Journal of Dental Research
Periodontal Abstracts
Quintessence International
JADA, JADHA

☐ Please send sample issue for my review

☐ \$48 one-year ☐ \$84 two-year

Name _____

Address _____

City _____ Prov. _____ Postal Code _____

Mail to:

PerioREPORTS, P.O. Box 52090
311 - 16th Ave. NE, Calgary, Alberta T2E 8K9

Hygiene Excellence

Featuring Nancy Adair, RDH, B.A.

Nancy Adair has always wanted to venture into the dental hygiene consulting business. It finally came true for her in April 1997 when she started her own business — Hygiene Excellence.

92



Nancy Adair, RDH, B.A.

Nancy is a graduate of the University of Manitoba School of Dental Hygiene and was especially interested in becoming an instructor. After graduating she worked in periodontal offices while completing her Bachelor of Arts degree. As a teacher at the School of Dental Hygiene she had the opportunity to be a clinical and laboratory instructor. Through the unfortunate illness of a co-worker she was also able to gain useful management experience, completing

one school year as acting second-year coordinator. She maintained her interest in education in her volunteer position as the continuing education chairperson for the Manitoba Dental Hygiene Association (MDHA).

Nancy has practised clinical dental hygiene in Winnipeg, Vancouver and the lower mainland of B.C. and Calgary. She has worked in periodontal and general practices, and has obtained her restorative and local anaesthetic modules. She has attended many courses to increase her knowledge about dental practice internationally. The more practical experience she had, the more Nancy, with her background in education, saw areas for improvement in training and education of hygienists. Now she has designed a dental hygiene "excellence" program with specific application to western Canada.

In general practices, Nancy is frequently referred to as the "perio" hygienist. She is a firm believer that all hygienists can be "perio" hygienists, given additional training and experience. "Not only do hygienists graduate with a very basic level of skill, but they have little understanding as to how a real dental office functions" she says. Nancy's goal is to help dentists incorporate dental hygiene even more effectively into their practices. "When a dentist graduates from a dental college, they have little knowledge about how to organize, design or implement an effective dental hygiene program. They need to be educated as to how a hygiene department should be structured, and how it should function within the dental practice" said Nancy.

Her consulting practice puts her in the position to be a liaison between the dentist and the hygienist, to help to structure and build the hygiene end of the practice. "Dentistry has become much more

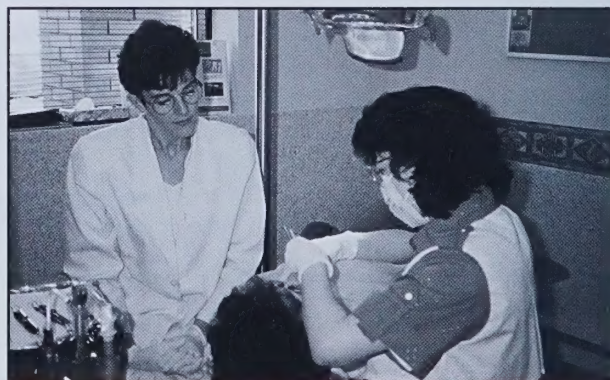
of a business since I graduated 15 years ago. It has to be dealt like one in order to reap the benefits" says Nancy. "When I was a new graduate I remember how overwhelming it was to go into a dental practice and to adjust to the demands of everyday dentistry! Hygiene Excellence is my way of helping dental hygiene programs within a dental practice function to their fullest capacity. With proper advice, a dental practice can avoid many unnecessary stumbling blocks. It gives them the leading edge in the field!"

In her consulting business, Hygiene Excellence, she provides invaluable information and skills with the aim of *enhancing* an existing dental hygiene program, *restructuring* an underachieving dental hygiene program, or *designing* or *developing* a new dental hygiene program. She achieves this through hands-on workshops, one day seminars, in-house consulting and personalized assessments.

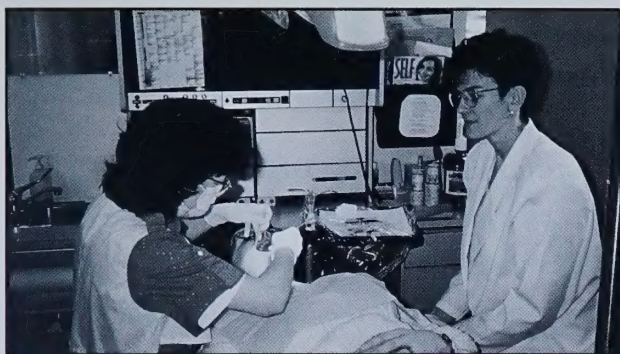
In many practices Nancy has found that more training in the following areas was valuable:

- Time management
- Effective diagnosis and treatment planning
- Efficiency in clinical skills
- Mastering a superior level of skill in scaling/root planing
- Communication skills between patients and doctors
- Understanding the dental office as a business
- The provision of outstanding service to patients.

Nancy addresses all of these areas in her various training sessions. For example, she offers a course called Enhancing Clinical Skills. This hands-on workshop is undertaken in the dental office, usually on non-productive days so Nancy and the participants can have full use



Nancy Adair oversees the work of a dental hygienist during a clinical enhancement session.



Nancy Adair and a participating hygienist in one of Nancy's clinical enhancement courses which was given at the Nosehill Dental Centre in Calgary.



of the facility. This workshop starts with a theory and demonstration session in the morning. In the afternoon each hygienist works with a moderate to advanced periodontal patient while Nancy provides one-on-one assistance to the hygienists. This has been a very successful workshop, enjoyed by both new graduates and long-time hygiene practitioners alike. Hygiene Excellence allows a unique type of continuing education course specially tailored for each office. With significant time spent on actual hands-on portions, Nancy believes Hygiene Excellence offers much more than traditional lecture-style courses.

Because Hygiene Excellence customizes its service to meet the needs of every dental office, a specific agenda is prepared early in the consultation in cooperation with the dentists and office managers. As a consultant, Nancy's role is to ask a lot of questions prior to developing the plan to ensure the office receives the information, materials, or skills that it most needs.

Nancy plans to continue to practice clinical dental hygiene on a part-time basis, and to develop and expand her consulting business in western Canada. She has a true passion for the profession, she's been happy to take this chance to share it with all her colleagues! "I would like to let more hygienists know that there are exciting opportunities out there if they use their talents and imagination!"

Sample of an Agenda Used for Enhancing Clinical Skills

MORNING SESSION

1. Discuss root planing as a procedure

- Understand the rationale for root planing.
- New thoughts on quality of root surface.
- Root planing versus scaling.
- Review time allotment necessary to perform procedures.
- When does root planing end?
- Complications during root planing for the operator.
- Difference between scaling and root planing (SRP) appointments and maintenance appointments. What to do when there is significant SRP at maintenance appointments?

2. Soft tissue, radiographic and restorative findings

- Do not focus just on the teeth! See the whole mouth and surrounding structures.
- Review cases of periodontally-involved patients and plan their treatments accordingly. Which patients need SRP? Review bone loss, root proximity, decay, restorations, mobility, morphology of roots.

3. Instrument review (hand and ultrasonic instruments)

- Information on the ultrasonic instrument as a tool of the 90s.
- Demonstrate the ultrasonic machine and inserts. Practice instrumenting on extracted teeth.
- Review instrument kits. A perio kit versus a maintenance kit. Inserts, which are perio and which are maintenance.
- When to sharpen instruments? The frequency of sharpening?
- The different types of stones available.
- Demonstrate sharpening technique on a set of instruments.
- Display poorly sharpened instruments versus well sharpened instruments. Display a dull instrument versus a sharp instrument and the difference in their effectiveness.
- Discuss the replacement of hand instruments and cavitron tips. What is the cost difference between the two and the frequency? Demonstrate the guide for length of the cavitron tip.

4. Plan treatments for patients that will be seen in the clinical session

- Each hygienist to do a case presentation on their patient. To include medical history, previous treatment, x-rays, periodontal findings, and the day's proposed treatment plan
- Discuss pre-medication and post-op recommendations.
- What type of oral hygiene instructions should be given to periodontally-involved patients?

AFTERNOON SESSION (TIME ALLOTTED FOR CLINICAL SESSION IS APPROXIMATELY TWO HOURS)

5. Clinical session on specified patients

- Ensure operatories are ready for patients.
- Review treatment plan with the patient. Is local anaesthetic necessary?
- Use a combination of ultrasonic instruments and hand instruments.
- Get personal feedback on instrumentation.

6. Review protocol for periodontally-involved patients

- Discuss each patient's next step.
- What should be done at the maintenance appointment or if patients are on a three- or four-month recall?
- Necessary periodontal information to gather on a yearly basis.
- What charges should apply to patients on initial therapy, maintenance or intervention appointments.

For more information about Hygiene Excellence, call (403) 547-1240 or (403) 547-4111.

SELF-ASSESSMENT TEST



Prepared by the National Dental Hygiene Certification Board (NDHCB). The NDHCB is the agency responsible for the development, administration, scoring and reporting of results of the National Dental Hygiene Certification Examination. CDHA in partnership with the NDHCB is pleased to provide sample questions likely to appear on the National Dental Hygiene Certification Examination in Probe issues. The sample questions are based on a series of 49 questions and answers displayed in the 1998 Application Guide available from the NDHCB. Questions 1 through 5 appeared in the March/April 1998 vol. 32 no. 2 issue of Probe.

94

6. Which chemotherapeutic agent for the control of bacterial plaque and gingivitis should offer the greatest substantivity?

1. Stannous fluoride
2. Chlorhexidine
3. Phenolic compounds
4. Oxygenating agents

7. An 80-year-old male client with severe Parkinson's Disease is brought to the dental office by his son. Periodontal assessment reveals adult periodontitis and a periodontal abscess on tooth 4.6. The son requests that all the rest of his father's teeth be removed. The client does not concur with this request and appears agitated. Which one of the following actions would be the most appropriate for the dental hygienist to take?

1. Arrange for a referral to a periodontist.
2. Advise the client and the son of all the options available.
3. Reassure the client that his son has his best interests in mind.
4. Discuss the issue with the father only.

8. Which one of the following oral health measures should be emphasized for a 15-year-old client with controlled insulin-dependent diabetes mellitus?

1. Dental plaque control to reduce oral infections
2. Fluoride therapy for caries control
3. Reduction of sugar intake
4. Application of pit and fissure sealants

9. Which one of the following statements best describes why the dental hygienist must be able to evaluate research findings and modify practice to reflect current knowledge?

1. To promote effective client care
2. To prevent negligent practice
3. To validate personal preferences
4. To eliminate practitioner bias

10. David, 13 years old, arrives as a new client at the dental office. The dental hygienist examines his teeth and observes that he still retains all of his deciduous canines and molars. He has not had radiographs in over three years. His older sister had also exhibited delayed eruption, but eventually all of her permanent teeth erupted. In addition to an examination, which of the following measures would be indicated?

1. Cephalometric radiograph
2. A full mouth survey
3. A panoramic radiograph
4. Occlusal radiograph

Answer Key and Rationale

- (The correct answer is indicated in parenthesis)
6. (2) Second-generation agents have antibacterial activity plus proven substantivity.
 7. (2) As a client advocate the dental hygienist should assist clients in obtaining the best possible care in the situation with informed consent and knowledge of alternatives.
 8. (1) Increased susceptibility to infections related to diabetes makes effective oral hygiene practices essential to maintain oral health.
 9. (1) All professions are characterized by a body of knowledge that provides the foundation for practice. Research provides the scientific basis for this knowledge. Practice based on research is necessary for sound judgment and to deliver the most effective care possible.
 10. (3) Panoramic radiographs are indicated for evaluating the growth and development of a client with mixed dentition.

How Much Insurance is Enough?

By Terry Kennedy, an Account Executive within Sun Life's Association Business Division

That's a question I get asked a lot. But according to a recent survey of consumer attitudes conducted by the insurance industry, most people already have an idea of just how much life insurance they need. This survey revealed that "consumers know that they need larger amounts of life insurance coverage" and "realistic estimates of the amount of life insurance they should own, usually ranged around three to five times their income."

However, the average amount of insurance owned by consumers is far less than this, with women owning lower amounts of insurance than men when expressed as a ratio of income. Why is this? Women are just as likely to be the financial decision-maker in a household and are more likely now than ever to earn more than their husbands. They are better educated and hold more high-paying professional jobs than ever before, and are more likely to be responsible for not only their own financial security, but their children's, and even their parent's.

The survey revealed that consumers believe life insurance products are complicated and expensive; they feel it is a purchase that can be put off until they can better afford it. Yet interestingly enough, when a focus group delved deeper into the question of cost, it was found that this is more a perception than anything else. When questioned about this perception, many asked "How much does life insurance cost?"

It also found that consumers are seeking basic information, convenience and simplicity, as well as confirming what many of us already knew... don't pressure me! Cold calls and lengthy meetings in which a salesperson won't take no for an answer are considered pressure tactics and consumers don't like it! Consumers are sensitive to the fact that life insurance is a product that no one wants to think about, but they are acutely aware of the need for it.

When considering life insurance, consumers are continuing the trend to buy Term Insurance to fulfil their needs, relying upon such vehicles as RRSPPs to provide tax relief and the build-up of capital necessary for retirement. It would appear that the tenet "buy term, invest the difference" has indeed become the way of the 90s consumer.

Interesting information you might say, but what does this have to do with me? The message Sun Life has heard is, "tell me what I'm buying in uncomplicated terms, tell me what it costs, tell me how much I need... then I'll make my decision. Finally, make it easy for me to

complete an application... then I'll buy." Your Association, in putting together the insurance program for their members, had the foresight to think about these issues. Consider these facts.

The Canadian Dental Hygienists Insurance Plan (CDHIP) provides Term Life Insurance to a maximum of \$500,000. This is certainly plenty to satisfy the three to five times annual income requirements of most CDHA Members. Term Life Insurance is exactly what it sounds like; life insurance for a specific term, or period of time. In this case, your CDHA Life Insurance Plan is renewable to age 64, and ceases when you reach age 65. If you should die before you reach age 65, a lump sum equivalent to the amount of insurance you have selected, will be paid to your designated beneficiary. Simple as that. No fancy bells and whistles. Just plain, low-cost, renewable term life insurance.

Due to the buying power of the Canadian Dental Hygienists' Association and its 7,000 members, we can offer this protection at lower cost. For example, a non-smoking female age 35 earning \$50,000 would pay a premium of \$0.92 per \$10,000 of coverage. Using the figures revealed by the survey, if our illustrated hygienist wanted \$200,000 of protection (four times her income), the premium would be just \$18.40 a month.

Your Association also considered the need for a simplified life insurance program. This insurance plan is designed to be easily understood and easily applied for. Using our previous example, the Term Life coverage is available in units of \$10,000. To provide the required \$200,000 of coverage, 20 units would be required. Premiums are priced per unit and by age band. It's as simple as that. As you move to another age band, your premium increases slightly to reflect the higher risk the insurance company naturally assumes as you age.

We also provide simplified spousal and dependent child life insurance benefits. Your spouse can obtain the same term life insurance, up to a maximum equivalent to yours. Each of your dependent children over 15 days old may be covered for up to \$10,000 each. Prior to age 15 days, they are eligible for \$1,000 of coverage.

Your Association also considered the fact that you, like most consumers, don't want high pressure sales tactics applied to you. That's why the decision to buy life insurance or to increase the amount of life insur-

How Much Insurance is Enough? (continued on page 102)

EXAMEN AUTO-ÉVALUATION



Préparé par le Bureau national de la certification en hygiène dentaire (BNCHD).

Le BNCHD est l'organisme chargé d'élaborer, d'administrer et de noter l'examen national de certification en hygiène dentaire, et d'en diffuser les résultats. L'ACHD en partenariat avec le BNCHD est fière de vous offrir des exemples de questions susceptibles de figurer à l'examen national de certification en hygiène dentaire dans les éditions du journal Probe. Les questions à titre d'exemples sont basées sur une série de 49 questions et réponses retrouvées dans le guide de demande d'admission (1998) disponible par le BNCHD. Les questions de 1 à 5 ont été publiées dans l'édition Mars/Avril 1998 volume 32 numéro 2 de Probe.

96

6. Quel agent chimiothérapeutique destiné au contrôle de la plaque bactérienne et de la gingivite devrait être le plus efficace?

1. Fluorure stanneux
2. Chlorhexidine
3. Composés phénoliques
4. Agents oxygénants

7. Un client de 80 ans en phase avancée de la maladie de Parkinson est amené au cabinet dentaire par son fils. L'évaluation parodontale révèle une parodontite de l'adulte et un abcès parodontal de la dent 4.6. Le fils demande que l'on enlève le reste des dents de son père. Le client n'est pas d'accord avec cette demande et semble agité. Quelle action, parmi les suivantes, serait la plus appropriée à adopter par l'hygiéniste dentaire?

1. Prendre les dispositions nécessaires pour référer le client à un parodontiste.
2. Présenter au client et au fils toutes les options possibles.
3. Rassurer le client que son fils a ses meilleurs intérêts à coeur.
4. Discuter de la question avec le père seulement.

8. Quelle mesure de santé buccale, parmi les suivantes, serait-il important de souligner à un client de 15 ans qui est atteint de diabète sucré insulino-dépendant et qui est fidèle à son insulinothérapie?

1. Contrôle de la plaque dentaire pour réduire les infections buccales.
2. Traitement au fluorure pour contrôler les caries.
3. Réduction de l'apport en sucre.
4. Application de scellements des puits et fissures.

9. Quel énoncé, parmi les suivants, décrit le mieux la raison pour laquelle l'hygiéniste dentaire doit être capable d'évaluer les résultats de recherche et modifier sa pratique de façon à refléter les connaissances actuelles?

1. Dans le but de promouvoir des soins efficaces aux clients.
2. Dans le but de prévenir la pratique négligente.
3. Dans le but de valider les préférences personnelles.
4. Dans le but d'éliminer le parti pris du praticien.

10. David, 13 ans, est un nouveau client du cabinet dentaire.

L'hygiéniste dentaire examine ses dents et note qu'il a encore toutes ses canines et molaires primaires. Le client n'a pas eu de radiographies depuis plus de trois ans. Sa soeur aînée a aussi présenté une apparition tardive des dents, mais toutes ses dents permanentes sont éventuellement apparues. En plus d'un examen, quelle mesure diagnostique, parmi les suivantes, serait indiquée?

1. Une radiographie céphalométrique
2. Un examen complet de la bouche
3. Une radiographie panoramique
4. Radiographie occlusale

Clé de réponses et justifications

- (la bonne réponse est indiquée entre parenthèse)
6. (2) Les agents de deuxième génération ont une activité antibactérienne et une efficacité qui a été démontrée.
7. (2) À titre de défenseur du client, l'hygiéniste dentaire devrait aider les clients à obtenir les meilleurs soins possibles selon le contexte tout en veillant à obtenir le consentement éclairé et à présenter tous les choix qui s'offrent au client.
8. (1) Chez les diabétiques, les pratiques efficaces d'hygiène buccale sont essentielles au maintien de la santé buccale à cause de la sensibilité accrue aux infections.
9. (1) Toutes les professions se caractérisent par une base de connaissances qui sert de base à l'exercice de cette profession. La recherche fournit la base scientifique de ces connaissances. La pratique fondée sur la recherche est essentielle au jugement sûr et à la prestation des soins les plus efficaces possibles.
10. (3) Les radiographies panoramiques sont indiquées pour évaluer la croissance et le développement d'un client présentant une dentition mixte.

Telehealth Technology: A New Medium for In-Service Education

AN INNOVATIVE LEARNING EXPERIENCE FOR DENTAL HYGIENE STUDENTS

By Eunice M. Edgington, Dip.D.H., B.Sc.D.(D.H.), M.A.Ed. Assistant Professor, Faculty of Medicine and Oral Health Sciences, The University of Alberta, and Janice F.L. Pimlott, Dip.D.H., B.Sc.D.(D.H.), M.Sc., Professor, Director of Dental Hygiene Program, Faculty of Medicine and Oral Health Sciences, The University of Alberta.

97

Introduction

This paper describes a dental hygiene student outreach education activity, using telehealth technology at the University of Alberta's Telehealth Centre. This outreach project was directed to a long-term care facility in Two Hills, Alberta, a community approximately 200 kilometres from Edmonton.

This experience provided an opportunity for dental hygiene students to be trained in a technology that is not currently available in any other dental hygiene program in Canada; it also provided an opportunity for the instructors to assess the use of the technology as a medium for the delivery of oral health education to distant locations.

The History of Telehealth

Telehealth technology is not a new phenomenon: it has been around for over thirty years.^{1,2} Canada was the one of the first countries to use telecommunications technology to assist in the delivery of health services.² As early as 1956, closed circuit television was used to transmit live electrocorticography tracings. In 1958, a Montreal radiologist, Dr. Jutras, pioneered teleradiology. The Federal Department of Communications also sponsored several projects between 1976 and 1982.²

The first reference to telemedicine in the United States appeared in 1959 in work performed at the University of Nebraska.¹ The state of Arizona ran a project from 1972 to 1975 delivering medical care to the Papago Indian Reservation.³ The National Aeronautics and Space Administration (NASA) was a pioneer of telehealth projects and provided technology and funding for most of the early demonstrations in the United States.⁴ NASA's interest was driven by the need to find ways to communicate with and provide health care to astronauts in space, but today many of the medical devices developed for this purpose are being adapted for use in delivery of terrestrial health services.⁴

These early telehealth projects were seen as exploratory pilot projects with limited long-term continuity.⁵ When funding dried up, most projects were not sustained, and interest waned.⁶ Many factors which hindered the sustained use of this technology were identified: a lack

of knowledge of appropriate technology,⁷ limited experience of health care personnel in using the equipment,⁸ and a lack of advocacy surrounding the technology⁹ were among the primary reasons for loss of interest and decreased use.

The Memorial University of Newfoundland (MUN) in Canada has the world's longest-running, effective telemedicine system, which has been in operation since 1970. Its success is attributed to operating with the simplest, least expensive and most flexible equipment available. The fact that interest has been sustained in the project is attributed to involving the users from the start of the project, seeking administrative support from other agencies, and including resources for evaluation of the process on an ongoing basis.¹⁰

History of Telehealth at the University of Alberta

In February 1996, the Telehealth Centre was established in the Faculty of Rehabilitation at the University of Alberta. It is a collaborative effort between the Faculties of Rehabilitation Medicine, Nursing, Pharmacy, and Pharmaceutical Sciences, Physical Education and Recreation, and Medicine and Oral Health Sciences. It represents the first interdisciplinary collaborative initiative for the delivery of health and educational services in the world.¹

The first telehealth linkage was established between the Faculty of Rehabilitation, University of Alberta and the Two Hills Health Care Centre, in February 1996. This technology was seen as an ideal medium to link heart patients who did not have access to specialists, with the Faculty's personnel for regular monitoring. It has proved to be an effective medium for meeting the needs of patients while avoiding the necessity of long-distance travel, as well as for providing local health care professionals access to specialists in Edmonton.¹¹

Representatives from the Dental Hygiene Program at the University of Alberta, have been involved in the planning and development of the Telehealth Centre from its inception. As members of the telehealth steering committee, dental hygiene representatives continue to promote the involvement of dental hygiene students in all

multidisciplinary health promotion activities within the health consortium. This work has resulted in an increased awareness and recognition for the Dental Hygiene Program, and has given dental hygiene students a role as equal partners in multidisciplinary health promotion activities on the campus.

The ultimate goal of the Telehealth Centre is to be part of an international telehealth network, for delivery of health services, education and research. The advantage of the dental hygiene students' involvement is that it enables them to act as advocates for the system in years to come. This experience will position future University of Alberta dental hygiene graduates to play a significant role in multidisciplinary health promotion initiatives that are now in the planning stages.

Educating the public on oral health issues is a primary role of dental hygiene professionals, a task that is being performed in private practices and public health units on a daily basis. Still the need for more effective oral health education has been identified.¹² Oral health information needs to be extended to other health care professionals, particularly those who have responsibility for the daily care of residents in long-term care facilities.¹²⁻¹⁵ Factors such as geography, climate, distance and economics are often cited as barriers to accessing oral health promotion programs.¹²⁻¹⁵ However, these barriers can be overcome using telehealth technology.

Literature Review

Research has shown that oral health is not adequate for residents in long-term care facilities. In these facilities, nurses and nursing aides are the primary care givers and are responsible for the patients daily care.¹²⁻¹⁵ Oral health education in the nursing and nursing personnel formal education programs is not a high priority, and does not provide sufficient information to deal effectively with the many oral health concerns found within the patient population.¹²⁻¹⁴ In-service education is recognized as one way to address these deficiencies.¹² Often barriers such as distance, economics, and time, prevent access to meaningful education programs. These barriers can now be bridged through the use of new communications technology.

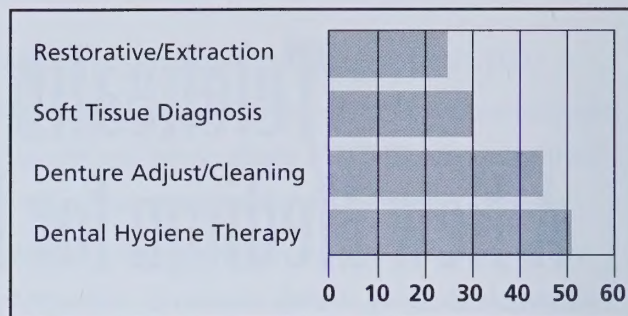
Telehealth technology is viewed as an ideal conduit for in-service education because it enables "real time" audio and visual interaction between the base and remote sites. It provides a means for outreach programs to be targeted towards health providers who normally are not involved (because of distance) in a university student's learning experience. It is in the areas of distance education, and health promotion activity, that telehealth is predicted to have the biggest impact.¹

Planning the In-Service Program

In September 1995, prior to establishing the telehealth link, dental hygiene representatives of the Telehealth Centre were invited to the Two Hills Health Care Centre. The purpose of the meeting was to discuss the role of dental hygiene in providing oral health promotion activities to the Two Hills health care staff. Other disciplines also submitted proposals at this time for health care services and health promotion activities. Following the meeting, permission was given to the Dental Hygiene Program to begin the process of determining the need for oral health in-service education. A three-step process was proposed and approved by the Health Care Centre's administration and the long-term care unit was selected as the target population for the initial oral health program. Confidentiality was assured for all aspects of this project.

Chart 1

NUMBER OF RESIDENTS REQUIRING PROFESSIONAL INTERVENTION



92 percent of the residents required dental hygiene therapy, 79 percent required denture adjustment/cleaning, 55 percent had mucosal lesions requiring diagnosis, and 44 percent required restorative and/or extractions by dentists.

Assessing the need for In-Service Education

The first phase of the process involved conducting an attitude and oral care activity survey of the health care providers. A total of 21 health care workers responded to this survey, carried out in October 1995.

The second phase of the project took place in March of 1996, when three dental hygiene students and their mentor travelled to Two Hills to conduct an oral health assessment of the residents. The average age of the residents was 82 years and of the 65 residents, 56 were available to be assessed. The dental hygiene team was provided access to the nurses' daily records and residents' health records. These records were used to determine other health-related problems, functioning level and documentation of residents oral health concerns.

The final phase of the information gathering process involved the administration of an oral care knowledge test to the 21 health care workers who were participants in the first phase survey. The test was then analyzed to determine the oral health knowledge deficiencies to be addressed in the oral health in-service education program.

Developing the In-Service Program

A compilation of data from the surveys showed that there were significant deficiencies in oral health care activities and in oral knowledge among all of the health care workers, despite their formal training. Deficient knowledge of medications and oral effects, soft tissue lesion identification and documentation, denture care, and managing a functionally-challenged patient was evident. There was no clear evidence in the nursing records to indicate that oral care was being carried on a daily basis. The residents' oral assessment data revealed that all residents had some form of dental disease which required professional intervention (*Chart 1*).

A site-specific in-service oral health education program was designed to address the needs of the health care workers and the residents. The content was specifically prepared to enable a more cost-effective delivery on the telehealth technology. This is important since the charges for this service are determined by the amount of on-line time.

To simulate an on site experience and to address different learning styles, the students selected a variety of delivery modes for the training, including slides, videos, and personal demonstrations. The students'

main objective was to achieve a high degree of interaction between the presenter and the participants at the remote site. The use of a full range of teaching modes would provide a more interesting learning experience for both parties as well as a means for comparing the experience of telehealth delivery to an on-site presentation.

Telehealth Equipment

Similar telehealth equipment used at the base and at the remote site (Figure 1). A coder-decoder device (CODEC) digitizes and compresses the video and audio signals and allows the transmission of images in slightly delayed time using a relatively small, narrow bandwidth with 30 frames-per-second motion. There are two 20-inch monitors with standard 520 resolution, one for viewing the local site and one for viewing the distant site. The sites are connected by a two-way audio system. Both sites have a ELMO document camera with graphic capabilities for presenting still images only and single-chip cameras, which can be panned, tilted and zoomed locally or remotely, by an AMX controller. The AMX system is used to control all operations of the system, except the computer. Each site has a VCR and a computer. There are diagnostic instruments at both sites. A patient camera at the remote site allows for a great degree of magnification and resolution of detail in transmitting live images.^{3,4} Intra-oral cameras can be hooked up at the base and/or remote site.

Telehealth Technology Training

Six dental hygiene students attended an introductory presentation on the telehealth system located in the Faculty of Rehabilitation. This provided them with a basic knowledge of the various components of the system. Following this, a comprehensive training session was scheduled and a live linkage was established with the telehealth coordinator in Two Hills. The hands-on experience and interaction taught the students how to operate the various components of technology themselves.

The students chose to do three rehearsals to practice the presentations with the telehealth equipment. During the rehearsals, it was determined that a minimum of three students were needed, to insure smooth delivery of each in-service topic. One person had to operate the ELMO (the device that enables the transfer of overheads, slides and photographs); one person had to operate the AMX controller (which operates the room camera, the video machine and the audio/visual transfer of information); and one person acted as presenter. The roles were changed in each workshop to allow each team member to experience all aspects of the process. A video camera was also set up in the Telehealth Centre studio to record the students in action during the presentations. The topics that were transmitted to the Two Hills site were video recorded from that site and later sent to the University of Alberta for analysis.

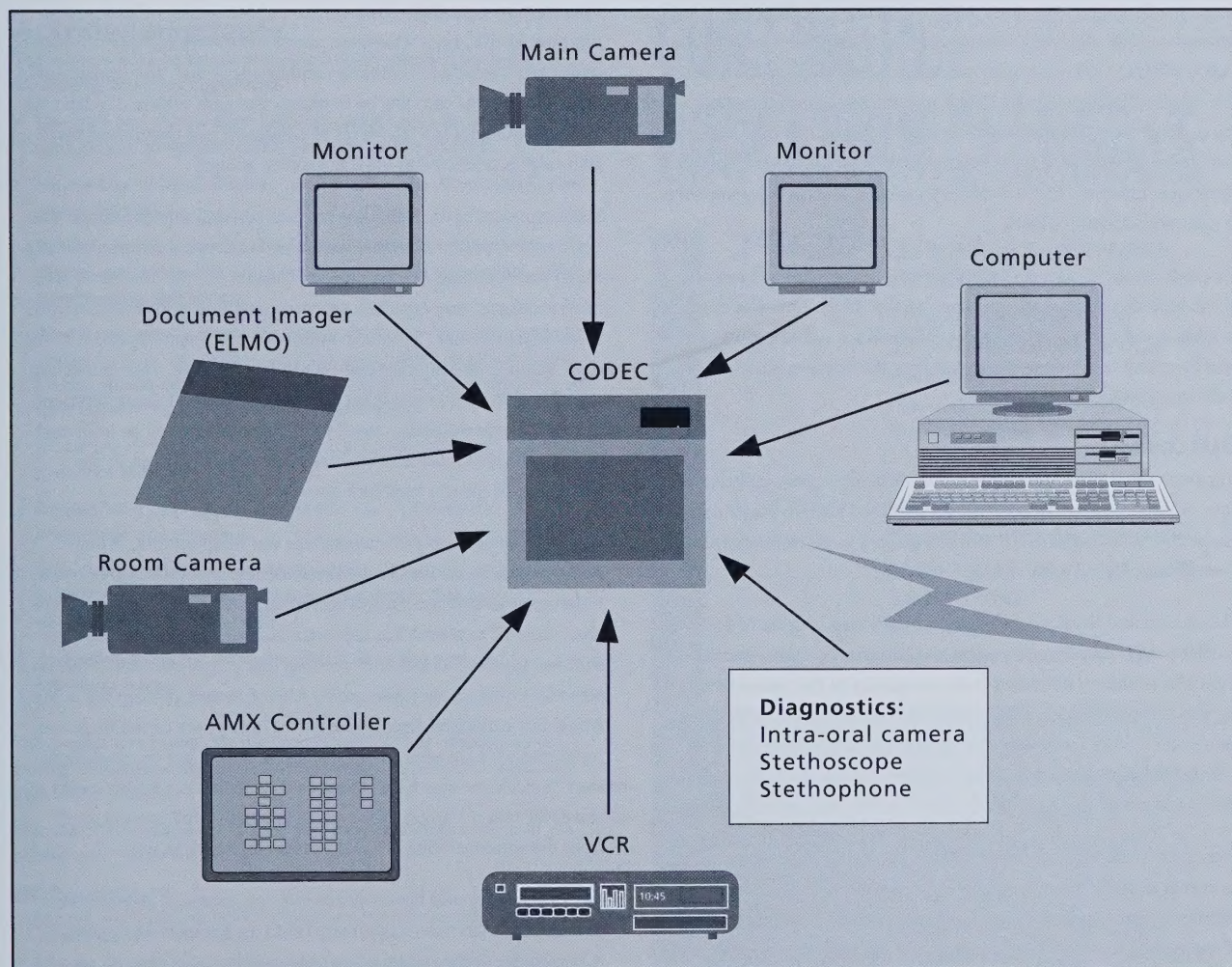


Figure 1
TELEHEALTH SYSTEM SITE CONFIGURATION

Delivery of In-Service Oral Health Education using Telehealth Technology

Due to student schedules and other time constraints, three one-hour, interactive workshops were scheduled, and one week's notice was given to the Two Hills site of each presentation. Each topic delivered included an appropriate introduction, a variety of teaching methods with emphasis on interaction and participation, time for question and answers, frequent references to site-specific needs and an evaluation feedback form to be completed by the recipients after each session.

The in-service team and the participants exchanged introductions on the first live session. The objectives of the workshops were presented by one of the students. The health providers were informed that the information in each workshop was specific to their needs and to the needs of the residents. Graphic illustrations of the findings of the assessment surveys were presented. This was done to reinforce the importance of the in-service information to the needs found within the Two Hills long-term care facility.

The modes of delivery included: table demonstrations on denture care, denture identification, and samples of denture products and other oral health aides; a video featuring one of the students illustrating the proper method of extra- and intra-oral tissue assessment; a series of slides which depicted a comprehensive overview of oral manifestations specific to the long-term care residents at Two Hills; hands-on demonstrations showing methods and techniques for providing oral care activities to uncooperative patients; a list of medications and oral side-effects specific to the residents; an overview of oral diseases and nutrition; and a demonstration on how to document oral findings. Each topic was followed by a question and answer period. The participants were informed that a workshop evaluation form would be sent to them for written feedback.

Throughout the sessions, the students made frequent references to the specific needs of the residents at Two Hills. This was done to reinforce the importance of the information to the health care providers and to motivate them to apply the knowledge to their daily care routines.

Outcomes

During the first presentation, technical difficulties were experienced, poor volume control, electric circuit overload and no available telephone line to Two Hills. The workshops had to be rescheduled for a week later.

The second and third workshops were delivered in spite of some problems with audio transmission and extraneous sound interference. The problems detracted from the quality of the presentations, but did not prevent them from continuing the delivery. The attendance at the workshops was disappointing for the students as only 6 of the 21 health providers attended. The reason given was that fewer staff could attend due to difficulty with rescheduling work timetables.

Workshop evaluation questionnaires completed by the participants indicated that the telehealth delivery was beneficial in addressing various learning styles and in increasing knowledge and awareness of the residents needs. It was rated as just as effective as on-site instruction. More time was requested for scheduling future in-service sessions, to enable all health care workers to attend. Because of the few participants this information is not sufficient to evaluate the telehealth equipment as a ideal medium for in-service delivery. Ongoing projects will provide this data.

Feedback from the students was mixed with regard to the technical difficulties experienced. A few of the members expressed frustration at having to reschedule the first workshop. This difficulty was exacerbated by the time constraints within the dental hygiene education program. Nevertheless, there was agreement among the students that learning to use the telehealth technology was an interesting and rewarding experience. Despite the technical difficulties, the students felt that all dental hygiene students should have exposure to this equipment before graduation, to prepare them for the future. They reported that their initial reticence with the equipment was easily overcome with the hands-on exercises and that the equipment was easy to learn and user-friendly.

The "real-time" interactive capability of this technology was seen by the students to be as flexible as classroom instruction. Some activities, such as table demonstrations were better received than classroom demos, because the room camera was able to zoom in on the activity, allowing easy viewing for all participants, even those at the back of the room. The technology was seen as convenient for initial and post-presentation consultation and for the delivery of supplementary information.

Discussion

A primary focus of the dental hygiene profession is in the area of oral health promotion. Currently dental hygienists deliver oral health information on a daily basis within private dental offices and in regional health units. However, access to remote regions is limited by distance, weather conditions, and financial and time constraints. These limitations can now be overcome through the use of telehealth technology, and it is in the areas of education and promotion that telehealth is predicted to have its greatest success.

Early exposure to the technology is fundamental to its sustained use, and in this case the exposure has helped students to overcome their initial fears of using new technology. Despite the fact that some technical problems were experienced, students found it to be an enriched learning experience. The difficulties provided a real opportunity for students to problem-solve and overcome obstacles, both increasing their confidence and reducing their anxiety toward the equipment. Dental hygiene students trained on the equipment will be informed and confident advocates of future telehealth initiatives, at the University of Alberta itself and elsewhere.

While the attendance at the workshops was disappointing, it does not appear to be attributable to the content of the workshop or to the technology. In this case study it was anticipated that the staff would be given time off to attend, but they were not; they came only after their shift was finished. As it is often the case that people put more value on activities for which they have paid a sum of money, perhaps the administration would have been more active in support of the in-service program had there been a nominal charge. Also, since the workshops were taped, some may have chosen to view them later. Whatever the cause, the lesson learned by the students was that full commitment from the administration is vital to ensure full participation.

When planning oral health promotion programs, it is important to link the objectives of the program to an organization's goals.¹⁶ A knowledge of the organization's philosophy toward health promotion is fundamental to the programs ongoing success. If evaluation is to be included in the program, the organization must be willing to track the effects of the in-service workshops on behaviour changes among the health care team that result in improved oral health of the

residents.¹⁶ These are essential steps if the intention is to make oral health promotion an integral part of the system rather than a one-time project.¹⁶ The process of planning and negotiating is time-consuming and very expensive, particularly if the organization is in a remote site. Ongoing monitoring is next to impossible for the same reasons.

With telehealth technology, educational program planning, delivery and outcome assessment will be possible. Ongoing collection of information by the base and remote sites will eventually provide enough data to support or reject the use of telehealth technology for health promotion and service delivery.

Conclusions

Dental Hygiene professionals must be willing to face the initial discomfort of learning a new technology if they want to be included in future distance health promotion programs. Time must also be allocated within dental hygiene education programs to enable students to explore this new frontier. At the University of Alberta, the Dental Hygiene Program is planning for the dental hygiene students to participate in an ongoing multidisciplinary field project which will be monitored through telehealth technology. Outcome assessments of these experiences will provide sufficient data to enable a more definitive evaluation of the technology as a conduit for education and health promotion delivery.

Acknowledgments

The authors wish to thank the following people and institutions for making this project possible.

- The staff and residents of Two Hills Health Care facility for their consent and participation in all aspects of this project.
- The Faculty of Rehabilitation for the use of the Telehealth Centre and technology.
- Dr. Christine Neuburn Cook, Assistant Professor of Nursing for her careful evaluation and input in developing the survey tool and for proofreading this paper.
- Dental Hygiene Students, Brenda Clark, Karen Head, Manon Labbe, Trevor Storzuk, Roy Wilson and Shannon Young, for their assessments, development and delivery of the in-service workshops and their helpful feedback and recommendations.
- Dr. Lili Liu for technology training and coordination of in-service workshops.
- Dr. Henrietta Logan for approval and use of the dental knowledge questionnaire.
- John Sych, Health Sciences Media Technician for recording, taping, and editing of the sessions and for his technical expertise with the equipment.
- Dr. Nadine Milos for reviewing this manuscript and providing advice.

This project was funded by the Department of Oral Health Sciences, Faculty of Medicine and Oral Health Sciences, University of Alberta, Edmonton, Canada.

The use of the Telehealth Centre was provided at no charge to the students or to the dental hygiene program.

References

1. Wynn-Jones J.: "Telemedicine: if it is the answer, then what are the questions?" *British Journal of Hospital Medicine* 1996; 55: No 1-2. p 4.
2. Elford R., House M.: *Telemedicine Experience in Canada (1956-1996)*. Telemedicine Centre, Faculty of Medicine, Memorial University of Newfoundland Report of the Congress International Conference, June 1996. Montreal Canada.
3. Bashshur R.L.: *Technology serves the people: the story of a cooperative telemedicine project by NASA. The Indian Health Service and the Papago people*. Washington (DC): National Aeronautics and Space Administration, 1980. 115p. Available from: US GPO, Washington, DC; 017-028-00009-0.

4. Bashshur and Lovett: "Assessment of telemedicine: Results of the initial experience." *Aviation, Space and Environmental Medicine* January 1977; 48(1): 65-70.
5. Tangelos E.G.: "Clinical Trials to Validate Telemedicine." *Journal of Medical Systems* 1995; 19(3): 281-285.
6. Grigsby J.: "Current Status of Domestic Telemedicine." *Journal of Medical Systems* 1995; 19(1): 19-27.
7. Brown N.: "Telemedicine Coming of Age." *The Medical Reporter*. Retrieved July 22, 1997, from the World Wide Web: <http://tie.telemed.org/>
8. Merrell R.C.: "Telemedicine in the 90's beyond the future." *Journal of Medical Systems* 1995; 19(1): 15-18.
9. Pushkin D.S.: "Opportunities and Challenges to Telemedicine in Rural America." *Journal of Medical Systems* 1995; 19(1): 59-67.
10. Pushkin D.S., Sanders J.H.: "Telemedicine Infrastructure Development." *Journal of Medical Systems* 1995; 19 (2): 125-129.
11. Coordinating Council of Health Sciences. *Telehealth Centre Annual Report 1996-97*.
12. Logan H.L., Ettinger R., McLeran H., Casco R.: "Common misconceptions about oral health in the older adult: nursing practices." *Special Care in Dentistry* 1991; Vol 11: No 6: 243-247.
13. Thomas J.: "A Multidisciplinary Approach to Health Promotion for Seniors." *Probe* 1992; 26(1): 29.
14. Shay K., Ship J.A.: "The importance of Oral Health in the Older Patient." *Journal of the American Geriatric Society* 1995; Vol. 43: No 12: 1414-1422.
15. Cirincione U.K., Fattore L.: "Improving the oral health of Older Adults." *Family and Community Health* 1996; 1: 9-19.
16. Kernaghan S.G., Giloth B.E.: "Health Promotion and Organizations: Why Tracking Impact is Important." In: *Tracking the Impact of Health Promotion on Organizations. A Key to Program Survival*. American Hospital Publishing, Inc. 1988. 158. p 1-12.

101

CONTINUING EDUCATION CALENDAR

MAY

25-27

LES JOURNÉES DENTAIRES
DU QUÉBEC

27^e CONGRÈS ANNUEL
DE L'ORDRE DES DENTISTES
DU QUÉBEC

Palais des Congrès de Montréal
Renseignements(514) 875-8511

JUNE

13-14

ADHA ANNUAL
PROFESSIONAL CONFERENCE

"OUR TIMES: PAST, PRESENT
AND FUTURE"
Edmonton, AB

Information(403) 465-1756

19-21

CDHA 9th ANNUAL
PROFESSIONAL CONFERENCE
INTERDISCIPLINARY
CONNECTIONS: BRIDGING
THE GAP

Charlottetown, PEI
Shirley Verheyden, Conference
Coordinator(613) 820-0084

CDHA
ACHD

ARTICLE:

Lidocaine Patches Control Pain in Hygiene Procedures, Serving as Option to Injections

102

Author: Trisha E. O'Hehir, RDH, BS
Journal: RDH

This article addresses the control of pain during dental Hygiene procedures through the use of a controlled-delivery, transepithelial lidocaine patch. This option is deemed superior to the traditional topical anaesthesia preparations available, and is of particular interest for the dental Hygiene clinician who are not themselves permitted to deliver block or infiltration local anaesthesia.

While topical anaesthetics have been claimed to be effective in reducing periodontal probing or injection discomfort for some clients, controlled studies indicate they have a negligible effect during these and other subgingival instrumentation procedures. The transepithelial lidocaine patch, however, appears to provide anaesthesia sufficient for probing, injection, and other procedures.

The technology surrounding bioadhesive patches developed from research to deliver controlled doses of hormones or nicotine. Small, FDA approved, mucoadhesive lidocaine patches have now been created for use by dental professionals. They are placed over the appropriate area for 15 minutes. The anaesthesia begins working approximately five minutes after placement. The effect can last for up to an hour depending on location and dosage. Patches are available in 10 percent and 20 percent concentrations delivering respectively 23mg or 46mg of lidocaine.

In clinical tests, the effectiveness of pain control was measured through needlesticks. The study group agreed to have several to-the-bone needlesticks placed; the pain produced was measured through a reported verbal scale of 1-4, and visual scale of 1-100. In the double-blind study, 100 clients were provided with patch anaesthesia (10 percent or 20 percent lidocaine, or a placebo) in both the maxillary and mandibular premolar areas. A 25-gauge needle (a common standard for routine dental procedures) was applied to the two areas prior to patch placement, and then again at 2.5, 5, 10 and 15 minute intervals. The mandibular arch exhibited a forty-minute or greater analgesic effect for both 10 percent and 20 percent patches. The maxilla showed evidence of analgesia for only 10 minutes for the 10 percent patch, but 40 minutes for the 20 percent concentration. Onset for all lidocaine strengths was 5 minutes.

A second multi-centre study with similar results is cited in the article. Tissue redness was reported as a side-effect in both studies, although the clinicians attributed this more to tissue trauma due to repeated puncture injuries than to the presence of the lidocaine patch. A University of Florida study reporting that periodontal probing pain was controlled for 10 to 60 minutes was reinforced by several other studies supporting the effectiveness of the patches for reducing injection pain.

The article concludes that because of the safe, effective and long duration of mucoadhesive lidocaine patch analgesia, it may "prove sufficient for pain control during subgingival instrumentation, polishing of sensitive teeth, periodontal probing, or therapeutic fibre placement".

HOW MUCH INSURANCE IS ENOUGH? (continued from page 95)

ance you carry, is yours to make. No life insurance agent will phone you to pressure you into an appointment. We provide you with the facts; you make the decision.

And finally, we make it easy for you to apply. Simply complete the application form included in your CDHIP insurance booklet and choose the benefits and coverage amounts you require. Include your personal cheque marked "void" for pre-authorized cheque payment of your monthly premium. Return your completed application form to

Sun Life. Once your application is approved, your coverage will become effective from the first day of the following month. You'll receive a personal *Certificate of Insurance*. If you need help, Sun Life makes available to you specially trained, bilingual customer service representatives. Their toll-free telephone number is 1-800-669-7921. If you are in the Toronto dialling area, call (416) 408-7390. You'll find them available and ready to assist you from 8:30 a.m. to 4:30 p.m. EST, Monday to Friday.

Urgent Care in the Dental Office

Reviewed by Kathleen Adams, RDH

Authors: Geza T. Terezhalmay, D.D.S., M.A. and Levente G. Batizy, D.D.
Quintessence Publishing Co. Inc., 256 pages, \$68.00

This book summarizes common dental emergencies, whether localized to the oral cavity or arising from systemic medical conditions. It is concise and is intended to be a handbook for the dental clinician. Though written with the dentist in mind, dental hygienists will find much in here of interest. Dental Hygiene educators will also find this a useful resource. The American Dental Association's definition of Emergency Dental Care Services is included in the introduction.

The chapters are arranged by subject, mainly as per the dental specialties. There are also chapters on restorative dentistry, traumatology, (both paediatric and adult), temporomandibular disorders (including muscle problems), and orofacial lesions. Each chapter orders information by specific condition, beginning with a brief overview, and continuing with signs and symptoms and diagnosis. Finally emergency treatment is outlined in numbered steps. Topics are searched using a simple guide on the right-hand side page. Each chapter closes with a useful list of additional readings.

Although much of the chapter on diagnosis is dentist-specific, there is a section on the collection of data that all dental personnel will find

useful. Procedures for dealing with medical emergencies (e.g. heart conditions, seizures, allergic reactions and respiratory problems) are dealt with at the beginning of the book, and provide a good review for practicing clinicians. The American Anesthesiologists' classification for the risk status of dental patients is also included to allow the practitioner to place each client in the appropriate risk category. CPR is reviewed with diagrams accompanied by captions.

The dental hygienist will find the chapter on periodontics of interest, covering as it does gingival/periodontal abscesses, necrotising ulcerative gingivitis, postoperative problems and acute traumatic injuries.

There are 160 illustrations within the 256 pages of this book. Many of these are clear, well-defined diagrams, especially in the chapter on medical emergencies. The editors have included many tables for quick reference. Equal quantities of black and white and colour photographs are used, with illustrations of orofacial lesions in colour.

The two appendices are also useful. The first is on emergency drugs, each outlined in a clear fashion and including a list of side effects and contraindications. The second appendix lists suitable emergency equipment for the dental office.

Overall, I found this a useful reference tool. Ideally, it should be reviewed before the emergencies arise.

103

General Interest Books on Healthcare

CDHA is pleased to inform its members that the following list of books are available from the Canadian Healthcare Association.

Canada's Health Care System: Its Funding and Organization, Revised Edition, Anne Crichton, Daved Hsu and Stella Tsang

Anthology of Readings in Long-Term Care, Marion Stephenson and Eleanor Sawyer, eds.

The Human Act of Caring: A Blueprint for the Health Professions, Revised Edition, Sister Simone Roach

Continuing the Care: The Issues and Challenges for Long-Term Care, Eleanor Sawyer and Marion Stephenson, eds.

Strategy Planning, Program Evaluation and Public Accountability for Health Service Professionals, Joseph Lloyd-Jones and Farhad Simyar, eds.

Multiskilled Health Care Workers: Issues and Approaches to Cross Training, Sherry Makely, Ph.D.

Reorganization and Renewal: Strategies for Healthcare Leaders, Donald N. Lombardi

Seamless Connections: Refocusing Your Organization to Create a Successful Continuum of Care, Connie J. Evashwick, Sc.D.

The Internet and Healthcare, Louis Nicholson, ed.

Integrated Delivery Systems: Creation, Management and Governance, Foundation of the American College of Healthcare Executives

The Buck Stops Here: The Executive's Guide to Bottom-Line Decisions and Actions, Carl Heyel

Pathways to Performance: A Guide to Transforming Yourself, Your Team, and Your Organization, Jim Clemmer

Motivation in Work Organizations, Edward Lawler III

Pinched: A Management Guide to the Canadian Health Care Archipelago, Susan A. Ziebarth, ed.

Working Scared: Achieving Success in Trying Times, Kenneth N. Wexley and Stanley B. Silverman

For more information, please call the Canadian Healthcare Association at (613) 241-8005 ext. 253.

MEDLINE

By Karen Wolf, Dip.D.H.

104

I am devoting this article to one topic: MEDLINE access. Many of you have expressed both an interest and some frustration with this service from the National Library of Medicine (NLM). One point I want to make immediately is that searching MEDLINE has been a **free service** since June 1997. Charges may apply if you wish to review full texts of some journal articles, as registration or subscriptions may be required before they allow full disclosure. Do not let this technicality keep you from enjoying the benefits of this newest member to the wide assortment of the National Library of Medicines' programs.

Before you begin searching MEDLINE you must first understand that it is a Web Library. While the National Library of Medicine has many services and programs available to users who are able to enter the doors of the building, MEDLINE is for those of you who need the services but are unable to travel.

The NLM uses Internet Grateful Med (IGM) as a "gateway system" for medical information delivery. This search system was created with the goal that it "provide users with assisted interactive retrieval from multiple information resources as the Library's major systems and databases evolve." The initial version of the IGM program allows a user to "create, submit, and refine a search in MEDLINE" through two avenues: an automatic, "Just Do It" function, and a user-invoked (becoming activated when more assistance is requested) function. For specific help on how to use this program a "twenty slide hyper-text introduction and system overview is available from the front screen." You can also check out the "New User's Survival Guide". This will lead you by the hand to show you just what IGM can do.

With the "Just Do It" function, IGM checks user terms (what you type in as a search) against the NLM's controlled vocabulary and searches them both as text words and as MeSH headings. Sound complicated? Not really, this merely explains why you get more than you ask for in your search. You see the NLM has a language of its own which compares your search words to those used in its body of documents, as it attempts to retrieve the data you require. IGM even detects invalid entries and checks and rechecks to see if it can retrieve anything from your request.

The "User-invoked" function starts when you add the "central concept" restriction to your search as well as when you add subheading "qualifiers" to focus the search in a specific direction. Users can apply limits to their search such as age group under discussion, publication type, language, study group, or year ranges. IGM offers clarifying maps when headings require qualification as well as for the "78 occupational speciality headings" it detects. In other words, IGM really does try its best to retrieve information from your search parameters.

Another useful search tool is the Metathesaurus (great big thesaurus), which assists the user in finding the best search term. Click on the "Find MeSH/Meta Terms" box and the Metathesaurus will become a part of the search underway. Click again and both the original and co-term are included, broadening your search.

Enough talk, now let's search. Type in the address for the National Library of Medicine:

<http://www.nlm.nih.gov/>

When the screen appears click on the *Free MEDLINE* bubble, then click on the title *Internet Grateful Med*. When first invoked IGM is set automatically to search MEDLINE. Select the "Search Other Files" on the search screen to change from MEDLINE to another database if you wish. Otherwise, click on *Proceed*.

The *National Library of Medicine: Internet Grateful Med Search Screen* will appear giving you three spaces to *Enter Query Terms*. It's your choice to use either subject, author name or title word. In the top space, I chose to enter the subject *Fluoride*. Let's begin our search together with this example.

We need to *apply limits*, so here's what I did.

1. Language — English (I chose this as my French is poor)
2. Study Group — Human
3. Age Group — Adult
4. Publication Type — Review
5. Gender — All
6. Journals — Dental
7. Year Range — 1980 to 1998

Now click on the *Perform Search* box and you should retrieve approximately 16 reviews. Read or print... but most of all expand your knowledge.

I hope you will all enjoy the benefits of MEDLINE without reservation. Remember, this is a library and sometimes its cataloguing language is not quite compatible with ours. Try not to get too frustrated, instead use the Metathesaurus when you require an option. Until next time.



Karen (Malloy) Wolf graduated from Dalhousie University's School of Dental Hygiene in 1984. She has practiced in general private practice for the past 14 years and continues to do so four days a week. She taught Radiology at the Nova Scotia Institute of Technology on a part-time basis for two years. She has delivered oral health presentations to local daycare centres, schools and Brownie groups. She is married with three children.



Policy Framework for Dental Hygiene Education in Canada

Adopted by the CDHA Board of Directors in January 1998.

Introduction

The Canadian Dental Hygienists Association (CDHA) has developed the *Policy Framework for Dental Hygiene Education in Canada, 2005* in partnership with the Allied Dental Educators' (ADE) Committee of the Association of Canadian Faculties of Dentistry (ACFD) with additional sponsorship from Dentistry Canada Fund. As well, a broad base of stakeholders from the professional associations, dental hygiene regulatory bodies, colleges, universities and the Commission of Dental Accreditation of Canada were represented in this development process (Appendix #1).

The *Policy Framework* affirms the document, *Dental Hygiene: Definition and Scope* while acknowledging the direct relationship between the outcomes of dental hygiene education and the evolution of dental hygiene practice. Future dental hygiene practice must respond to an expanding body of dental hygiene theory, changing demographics and oral disease patterns, and the increasing need for quality oral health services. This document will serve a variety of user groups including but not limited to: regulatory and accreditation bodies; educational institutions and dental hygiene education programs; dental hygiene educators and students; other health professions, and the public.

Social, economic, political, and technological forces will influence future dental hygiene practice. Dental hygiene education in Canada must respond to these changes by promoting and incorporating future developments in educational strategies, theory development and research. Dental hygiene education must be proactive and prepare graduates for increasing levels of responsibility and accountability in new and varied practice environments.

At the present time, CDHA supports all nationally accredited Canadian dental hygiene diploma programs and the two existing dental hygiene baccalaureate programs. However, CDHA also recognizes that entry-level education must adapt to remain commensurate with preparation for entry to an evolving health care system which demands greater independence, accountability and quality of services. Recognizing future needs, CDHA advocates that dental hygiene education in Canada develop a more comprehensive academic system of baccalaureate and graduate dental hygiene programs. Within this comprehensive academic system, there should be provisions with enhanced accessibility for all dental hygienists with appropriate credentials, and all programs should provide credentials that accurately reflect the educational preparation of graduates.

Guiding Principles

The guiding principles of the *Policy Framework for Dental Hygiene Education in Canada, 2005* describe the basic elements and characteristics of this comprehensive dental hygiene education system.

DENTAL HYGIENE EDUCATION MUST BE:

- accessible to all qualified Canadians;
- accountable and provide graduates with opportunities to be self-directed, critical thinkers, committed to the delivery of quality oral health services;
- client-centred and directed to societal needs and individual client needs and expectations;²
- collaborative, providing an alliance between the client and health professionals working together to develop a single, integrated and comprehensive approach based on client needs and resources, and available health service resources. This collaborative relationship should be reflected in an inter-disciplinary education program which results in interaction between dental hygienists, client, and other health professionals;⁷
- health and wellness focused, with an emphasis on the provision of primary care;
- research-based, providing evidence for dental hygiene theory. It is essential that dental hygiene services are evidence-based to meet quality assurance requirements. It is also imperative that continuing research is accomplished in order to address the future oral health needs of the public;
- capable of assuring quality by being subject to internal and external evaluation processes such as program review and accreditation, dental hygiene education programs must be delivered in a comprehensive and integrated manner; and
- articulated, in order that the dental hygiene education programs and their credentials facilitate accessibility from entry level to post-doctoral qualifications.

Dental hygiene education has three basic elements: structure, process and outcomes. All elements impact on the students' acquisition of knowledge, skills and attitudes required for dental hygiene practice. These Guiding Principles are to be embedded in the design of dental hygiene education.

Structure of Dental Hygiene Education

Through structure, student and graduate mobility must be facilitated by appropriate credentialling and articulation arrangements. Appropriate resources (financial, physical and human) must be in place to support a comprehensive education system. Applicants to dental hygiene education programs must have access to prior learning assessment opportunities to support integration throughout the education system.

The following structural elements are essential. Dental hygiene education programs must:

- be established at post-secondary institutions recognized by the appropriate governmental agency;⁸
- be guided by an institutional mission statement which, in turn, guides the development of program goals and objectives as well as addressing the community's culture, and the changing needs of both the community and its health care system;
- have an organizational structure which reflects the needs of the changing social environment and promotes access, cost-effectiveness and accountability;
- support principles of inclusivity while recognizing the needs of diverse student populations;
- provide physical facilities which have sufficient resources to deliver a curriculum which meets the programs' goals and objectives; and where possible utilize community-based facilities to support student learning experiences;
- employ faculty who have the appropriate educational credentials and practice experience to carry out the programs' goals and objectives and serve as professional role models;
- structure the curriculum delivery system to support adult learners;
- be accessible to a diversity of learners through innovative delivery systems; and
- provide access to educational opportunities through the integration of technology.

Process of Dental Hygiene Education

An educational system includes curriculum design, instructional design, course content, learning experiences and student evaluation. The educational environment should be flexible and capable of responding to ongoing changes within the health delivery system, consistent with professional goals and public need. Dental hygiene education programs must:

- comply with accreditation standards;
- ensure that program length and credentialling are consistent in order that students achieve the appropriate credential for their educational experience;
- collect and maintain data that will provide a basis for program review and revision;
- provide expanded learning opportunities through the development of inter-institutional agreements to enhance transferability of credits and contribute to making a baccalaureate degree the basis of entry to practice;
- design a curriculum that enables the graduate of the education program to reliably demonstrate the required knowledge, skill and attitudes to assure that the graduates are competent; and
 - capable of meeting the public's needs;
 - prepared to practice in an increasingly complex and interdisciplinary health delivery system;

- literate, capable of problem-solving and decision-making;
- capable of life long learning, professional development and continuing education;
- able to meet the needs of a wide range of client groups such as the elderly, the culturally diverse, the disadvantaged and the physically challenged;
- capable of assuming all roles/areas of responsibility of dental hygiene practice to include those of clinician, educator, health promoter, administrator and researcher; — capable of applying moral and ethical reasoning for professional and competent practice; and
- prepared for advanced educational opportunities.

Outcomes of Dental Hygiene Education

The purpose of a dental hygiene education system must be to graduate dental hygienists who can meet the public's evolving oral health needs and expectations through a multiplicity of roles in a multiplicity of practice environments. Central to the public's evolving needs are the key concepts of accessibility, choice of provider, cost, and accountability.³

GRADUATES WHO CAN MEET FUTURE HEALTH NEEDS SHOULD HAVE THE ABILITY TO:

- understand the determinants of health and oral health;
- ensure access to oral health services for individuals, families and communities;
- integrate theory into practice;
- willingly function in new practice environments within interdisciplinary team arrangements;
- work effectively as a team member;
- incorporate and balance cost and quality in the decision-making process;
- ensure active collaboration with the client in making decisions about dental hygiene services and in evaluating the quality of these services;
- help clients (individuals, families and communities) maintain and promote healthy behaviours;
- apply increasingly complex technology in an appropriate manner;
- understand the determinants and operations of the health care system from a broad political, economic, social and legal perspective in order to continuously improve the operation and accountability of that system;
- manage and use large volumes of scientific, technological and client information;
- assess, prevent and mitigate the impact of environmental hazards on health;
- provide counselling for clients in situations where ethical issues arise and participate in discussions of ethical issues in health care as they affect health professions, communities and society;
- respond to increasing levels of public, government and third-party participation and scrutiny of the shape and direction of the health care system;
- appreciate the growing diversity of the population, and the need to understand health status and health care through differing cultural values; and
- anticipate changes in health care and respond by redefining and maintaining professional competence throughout practice life.³

Conclusion

The *Policy Framework for Dental Hygiene Education in Canada, 2005* reflects the transition from a health occupation to a health profession. This comprehensive system for dental hygiene education will facilitate:

- improved public access to dental hygiene services;
- expanded practice opportunities;
- increased choice of practice environment; and
- restructured collaborative relationships with health and non-health service delivery organizations.

The purpose of this *Policy Framework* is to outline the boundaries, parameters, and essential elements of dental hygiene education in Canada. The *Policy Framework* articulates the need for dental hygiene education to be an evolving and comprehensive academic system which is accessible to meet the needs of the learners, the environment and the public. This *Policy Framework* incorporates a systems approach which promotes the analysis of the elements which comprise the educational phenomenon of structure, process and outcomes. A systems approach is necessary to assure accountability, since the exploration of the individual elements within a system is limiting.

Appendix 1

HISTORY

- The *Policy Framework* has evolved from the national competency profiles for dental hygiene developed in 1987 by the Canadian Dental Association, Council on Education and Accreditation (CDA) to support the dental hygiene program accreditation process. In 1991, the CDA identified the need to review and revised the competency profiles for both dental hygiene and dental assisting.
- The Allied Dental Educators' Committee (ADE) of the ADFD formulated proposals for two strategic planning sessions. At this time, a broader approach was planned to ensure that the final product would be valuable to a variety of stakeholders associated with dental hygiene and dental assisting education.
- At the same time, CDHA had been pursuing initiatives related to national certification and the development of national dental hygiene education standards. To maximize resources and meet similar needs, CDHA and ADE embarked on a collaborative relationship.
- In March, 1993, at a strategic planning session in Vancouver, participants identified the need to revise the 1988 Dental Hygiene Clinical Practice Standards to include all aspects of dental hygiene practice⁴
- In June, 1993, CDHA organized a workshop in Ottawa to revise the dental hygiene clinical practice standards. The initial draft of *Dental Hygiene: Definition and Scope* was produced at this meeting.
- ACFD/ADE received funding to assist with the development of education standards to complement the revised practice standards. A CDHA/ACFD workshop was held in Winnipeg, October 1994.
- The Winnipeg education standards document was circulated to the stakeholder organizations for review. CDHA reaffirmed the need for these standards to be generic and futuristic.
- The CDHA Task Force on National Dental Hygiene Education Standards met in Winnipeg, October 1996 to create a Policy Framework building on the 1994 document.

References

1. "Learning Outcomes." *Centre for Curriculum and Professional Development Newsletter*. British Columbia Ministry of Education, Skills and Training, Vol 8: 2. August 1996.
For more information about systems thinking, *The Fifth Discipline* by Peter Senge (Doubleday, 1990) is a helpful reference.
2. *Report of the Task Force on Dental Hygiene Education*. American Association of Dental Schools Standing Committee of Dental Hygiene Directors, 1988-92.
3. *Healthy America: Practitioners for 2005*. Pew Health Professions Commission. October, 1991.
4. Strategic Planning Session for Dental Assisting and Dental Hygiene Education Standards. Vancouver: ACFD/ADE Committee. March, 1993.
5. *Moving the Profession of Dental Hygiene Towards the Year 2000*. Niagara Falls: ACFD/ADE Committee. October, 1993.
6. *The Practice of Dental Hygiene in Canada. Description, Guidelines and Recommendations*. Report of the Working Group on the Practice of Dental Hygiene, Part I. Health and Welfare Canada. 1988.
7. Dental Education at the Crossroads — Summary. *Journal of Dental Education*, Institute of Medicine. Vol. 59:1, 1995.
8. *Dental Hygiene Accreditation Process and Education Requirements*. Commission on Dental Accreditation of Canada, 1994.

Other reference materials used in developing the Framework include:

Dental Hygiene Definition and Scope. Canadian Dental Hygienists Association. August, 1995.

Report of the Post-Diploma Advisory Group. Canadian Dental Hygienists Association. April, 1996.

Dental Hygiene Program Standard. College Standards and Accreditation Council, Ontario Ministry of Education and Training. June, 1996.

107

Classified Ad Rates

Fifty (50) words or less, \$26.75 (GST included).

Additional words: \$0.54 per word (GST included).

Closing date for the receipt of copy is approximately one month prior to publication date:

DEADLINE	ISSUE	CIRCULATION DATE
December 10	January/February	January 15
February 10	March/April	March 15
April 10	May/June	May 15
June 10	July/August	July 15
August 10	September/October	September 15
October 10	November/December	November 15

Advertisers' Index

CDHA	86 & 119
COLGATE	IFC
JOHNSON & JOHNSON	84
MIDLAND WALWYN	113
OPTIVA	OBC
PERIO REPORTS	91

GIVE SOMEONE A SECOND CHANCE.

Discuss organ donation with your family.

THE KIDNEY FOUNDATION OF CANADA

CDA INFORMATION BULLETIN:

Dental Unit Waterlines

The CDA Bulletin to Dental Unit Waterline Maintenance was passed by the CDA Board of Governors in September 1997 and is provided here with the permission of the CDA for information to dental hygienists in Canada.

108

Recent studies have determined that the water delivered by dental unit waterlines may contain a higher number of microorganisms than is acceptable for water to be considered potable, or safe, according to the current Canadian standards for water quality. Although there is no evidence to suggest that healthy patients have been infected by these organisms in the dental office, their presence in dental unit waterlines suggests there may be some degree of risk, especially for the immunocompromised patient. Dentists can significantly lessen this risk by maintaining their dental unit waterlines on a daily basis. CDA has developed guidelines on dental unit waterline maintenance to assist dentists in this regard.

Dental unit waterlines are the small gauge pipes or tubes that deliver water (used for cooling, rinsing and flushing during patient treatment) from the dental unit to the dentist's handpiece, air/water syringe and ultrasonic scaler. In most cases, the source of the water delivered by dental unit waterlines is the dentist's municipal water supply. However, in rural areas the source of this water is frequently a subterranean well. Until recently, it was widely assumed that the water delivered by dental unit waterlines would be of comparable quality to the source water entering the dental unit. In other words, if the water entering the dental unit met the quality standards for drinking water, it was anticipated that the water delivered by dental unit waterlines would also meet these standards. Recent studies suggest that this is not entirely true.

The purpose of this bulletin is to provide dentists with immediate, practical ways of improving the quality of water delivered by their dental unit waterlines, to explain why a potential problem exists, and to provide scientific background information to help dentists respond to patient concerns related to water quality and the risk of infection in the dental office.

CDA recommends that dentists maintain their dental unit waterlines regularly, and has developed the following guidelines to assist dentists in this regard.

Dental Unit Waterline Maintenance

Dentists can reduce the potential for microorganisms to be present in the water delivered by dental unit waterlines, and significantly diminish the risk of infection, by following these waterline maintenance procedures:

- Avoid heating water for the dental unit.
- At the beginning of each clinic day, purge all lines by removing handpieces, air/water syringe tips and ultrasonic tips, and flushing thoroughly with water. The decrease in bacterial

counts associated with such purging has been confirmed in two Canadian studies.^{1, 2} According to Barbeau et al¹ (1996) a purge of approximately 5–8 minutes in duration is required to reduce bacterial counts to potable water standards (<500/cfu/mL).

- Run high-speed handpieces for 20–30 seconds after each patient to purge all air and water.
- Use sterile water or sterile saline when flushing open vascular sites and/or cutting bone during invasive surgical procedures.
- Follow manufacturer's instructions for daily and weekly maintenance if using bottled water or other special delivery system.

Why Maintenance is Important

Testing has revealed that the water delivered by dental unit waterlines may not meet the same quality standards as the source water from which it is drawn. Water quality is assessed in several ways. The most widely known measure of water quality is the fecal contamination test, which relies on a count of the number of E-Coli bacilli found in a sample of the water supply. *Escherichia Coli* is a bacillus, and has several strains that are normally found in human or animal gastrointestinal tracts. Water is generally determined to be potable or safe for drinking if the E-Coli count is less than one colony per 100 mL (<1 colony/100 mL).³ There is no special problem for dental unit waterlines in this regard; i.e. if the E-Coli count in the source water is satisfactory, it will also be satisfactory in the water delivered by dental unit waterlines.

A lesser known measure of water quality is called the *heterotrophic plate count test*. Heterotrophs are microorganisms that cannot synthesize their own food, and are dependent on complex organic substances for survival. The heterotrophic plate count, which is measured in colony forming units per mL (cfu/mL), determines the number of colonies of heterotrophic microorganisms per millilitre of water. Water is deemed to be potable if the count is 500 cfu/mL or less. Recent studies suggest that the plate count scores of water delivered by dental unit waterlines may be dramatically higher than those of the potable source water entering the dental unit.

The major factor contributing to this difference is the development of *biofilm* in dental unit waterlines. Biofilm is essentially a slime layer or *bacterial plaque*, which results from the microorganisms in water binding to an inert surface over which the water is flowing. This layer forms anywhere that water flows over an inert surface. Over time, single-celled organisms and colonies build up a durable matrix

or film of heterogeneous microbial accumulations and other material, and the water flowing over this microbial biofilm will pick up microorganisms.⁴

The problem is not exclusive to dentistry. The ordinary water pipes in our homes and offices also develop biofilm. In fact, the water coming from the tap in your kitchen may test higher for cfu/mL than the source water, i.e. the municipal water supply. This is especially true if the water in your pipes has not been run for a while and if ambient temperatures have been on the warm side. Higher cfu/mL counts, in some cases approaching 80,000 cfu/mL, have even been found in bottled spring waters.

Studies of the water delivered by dental unit waterlines have commonly found heterotrophic plate counts of 10,000 to 100,000 cfu/mL or more. Dental unit waterlines appear to present a favourable environment for the development of biofilm. The small tubing means there is a relatively large surface area of tube in comparison to volume of water, and the water tends to flow down the centre of the tube with less flow along the walls. In addition, the water is sometimes heated for patient comfort. Dental unit waterlines may lie dormant for longer periods. The dental unit waterline tubing may also be plastic or rubber, and these materials present a surface with a substrate (surface characteristics of the underlying material) that may be more hospitable to microorganisms than, for example, copper piping.

There is a considerable difference between the “theoretical potential” for risk and “evidence of illness being caused by dental unit waterlines.” This is reflected in the basic principles of microbiology, which may help to explain and put the dental unit waterline situation in perspective. The key point is that *exposure* to a possible pathogen and *transmission* of disease are distinct from one another. Exposure does not always lead to transmission.

A *pathogen* is defined as any *disease producing organism*. The human body, including the oral cavity, is exposed to endogenous microbial flora, while exogenous microbes may be found in air, soil, water and food. Even the surfaces in our homes and workplaces may carry microbes. The important question to consider is whether these microbes can cause infection and become pathogenic. In fact, the answer to this question can be found in the second microbiological principle, which is expressed in the following equation:

$$\text{Risk of Infection} = \text{Virulence of Microbe} \times \text{Dose of Microbe} \times \text{Host Resistance}$$

Virulence is the degree of pathogenicity of a microorganism (as indicated by the severity of the disease produced and the degree of the microbe’s ability to invade host tissue). The virulence of the microbe, the amount of exposure to the microbe and host resistance are all vital factors which interact and determine if infection will occur. *Exposure* to a pathogen is accordingly clearly not synonymous with *infection* by the pathogen.

The principles of the *risk management* process may also help to place the issue of dental unit waterlines in perspective. This process begins with the identification of a *possible hazard*, which in this case is the colonization of waterlines by microorganisms. Once the associated risk is estimated, risk analysis, assessment and control can be completed. In the case of potable water standards, both the E-Coli count of one colony/100mL and the heterotrophic plate count of 500 cfu/mL represent risk management decisions by public health authorities to

accept these levels of exposure. Everything we do in our daily lives carries some level of risk, and the existence of a possible hazard is not automatically synonymous with unacceptable risk. The challenge is usually to identify the real threshold of significant risk.

The predominate microbial isolates found in dental unit waterlines, according to Barbeau et al, include *Sphingomonas paucimobilis*, *Acinetobacter calcoaceticus*, *Methylobacterium mesophilicum* and *Pseudomonas aeruginosa*.¹ These are not particularly virulent, although they are classified as opportunistic organisms that may cause nosocomial infections. (Nosocomial infections are defined as infections that may be contracted during a stay in hospital). *Pseudomonas aeruginosa*, for example, can cause pneumonia in individuals with cystic fibrosis. As every dentist is aware, the oral cavity itself presents an environment that harbours a variety of potentially infectious microorganisms, including — in many individuals — staphylococcus bacteria. The human immune system successfully protects the vast majority of individuals from opportunistic microorganisms. In fact, studies have not demonstrated risks of infection for the vast majority of dental patients. However, the problem has not been extensively researched, and the existence of such microorganisms in the water delivered by dental unit waterlines suggests the possibility of some degree of risk, especially for the immunocompromised patient, because these patients are susceptible to infections in general.

CDA’s infection control policies have consistently stressed the *principle of universal precautions*. These policies are based on the premise that dentists are not always fully aware of their patients’ health status, or of the potential for disease transmission to occur. Dentists should pay particular attention to waterline maintenance to ensure that risk is *reduced for all patients*.

It should be noted that there is also a theoretical potential risk (through the water aerosols generated in patient treatment) for dentists and allied dental personnel. *Legionella* is not found significantly more often in samples from dental units than in potable water, but the increased concentrations that are sometimes found in dental unit waterlines increase the risk. Care should be taken to keep dental unit waterlines from lying dormant, or to ensure that they are flushed prior to use after lying dormant.

If dental unit waterlines presented a high degree of risk for infection of the general population, specific evidence of associated disease would be more readily available. However, since opportunistic organisms may be present, there is a possible risk for immunocompromised patients. In short, the risk associated with typical dental unit waterlines is not a simple, clear cut, black and white issue, but a sliding scale or continuum, with possible risk for the immunocompromised or susceptible patient at one end, and minimal risk for the healthy patient at the other.

The issue of exactly how much risk is involved is further complicated by problems of measurement. Because all of us are exposed to microbes in a wide variety of ways, it will be difficult to isolate and document any effects actually caused by dental unit waterlines. Measuring the number of colony forming units per millilitre in waterlines is not, by itself, a meaningful indicator that can be taken into account in scientific calculations. For example, changing the temperature of the water by a single degree will tremendously change the cfu/mL count, which is typically higher with warmer temperatures and lower with cold. This means that even the standard North American measure of water quality,

500 cfu/mL, needs to be related to a specific temperature to be of any scientific value. In addition, a scientific consensus has yet to be developed on any "thresholds" of risk on such a sliding scale, whether they are defined in relation to temperature or not.

It is possible to have a laboratory test the quality of the water being delivered by your office's dental unit waterlines, if such a service is available in your area. However, you would need to furnish refrigerated samples of water or the number of colonies would grow during shipping. The most appropriate and practical response, at present, is to pay particular attention to maintenance of your dental unit waterlines.

Both the Canadian Dental Association and the American Dental Association are interested in encouraging technological developments to improve the quality of water delivered by dental unit waterlines.

A worthwhile technological solution will ensure that water delivered can meet potable water requirements or better in an ergonomically practical, efficient, consistent, reliable and economical fashion. Currently emerging or available technological solutions must be assessed against such criteria. In 1996, the Canadian Dental Association called for research projects to examine the issue of biofilm in dental unit

waterlines and the efficacy, ergonomic and economic dimensions of technological responses available or under development. Funding for selected research studies is being arranged. Technological developments appear promising although the question of the need to add to the cost of patient care must be frankly addressed and justified in terms of risk/benefit on scientific grounds. CDA will continue monitoring this topic and will keep members informed of developments.

Committee on Community and Institutional Dentistry, The Canadian Dental Association, April 1997, Dr. Trey Petty, Chairman, in consultation with Dr. Ross Anderson, Dr. Joel Epstein, Dr. John Hardie, Dr. Edward Putnins, Dr. Michael Levy, Dr. Jean Barbeau.

References

1. Barbe, J., Tanguay, R., Faucher, E. et al. "Multiparametric analysis of waterline contamination in dental units." *Appl Environ Microbiol* 62: 3954-3959, 1996.
2. Whitehouse, R.L.S., Peters, E., Lizotte, J. et al. "Influence of biofilms on microbial contamination in dental unit water." *J Dent* 19: 290-295, 1991.
3. Health Canada. *Guidelines for Canadian drinking water quality*. 6th ed. 12-13, 19-6.
4. Shearer, B.G. "Biofilm and the dental office." *JADA* 127: 181-189, 1996.
5. Atlas, R.M., Williams, J.F. and Huntington, M.K. "Legionella contamination of dental-unit waters." *Appl Environ Microbiol* 61: 1208-1213, 1995.

KEEPING ABREAST OF HEALTH CARE CHANGES (continued from page 83)

one of interdependency and shared responsibilities. Patients want to be involved and educated about treatment options and they expect their concerns and questions to be taken seriously.

Age, gender, and cultural differences are some of the factors that will determine just how involved a patient becomes with their treatment. Patients are interested in information and alternatives. They want health care professionals to listen to their desires and concerns as they develop a shared understanding of the patient's needs. Listening is an essential skill yet it often remains the weakest link in the communication process. As health care professionals, we can improve our communication process by asking questions to clarify uncertainties and ensure that the information we have presented has been interpreted correctly. It is important not to stereotype individuals it hinders open dialogue. Keeping an open mind and spirit encourages clarity and a shared understanding of problems and solutions. The resulting partnership shares responsibility and ownership for the decisions taken.

In order to determine whether treatments have been successful, it is also important to determine the level of patient satisfaction. The dental hygiene treatment should focus on and revolve around patient satisfaction. Patient satisfaction has been described as the hub of a wheel with all other aspects of care as the spokes.

Dental hygiene is a health care discipline that integrates theory and practice. There must be a synergetic relationship between dental hygiene research and practice. The science is the theoretical basis for practice, and practice provides valuable data for theory development. Equally, a collaborative relationship should exist with other groups, such as patients, health care professionals, and society as

a whole. The dental hygiene process of care is inherent in our discipline and involves the assessment, diagnosis, planning, implementation, and evaluation of care. Our profession has developed a unique body of knowledge. New knowledge, generated by research, is necessary to support decisions we make in patient care. Research provides the knowledge, or evidence base, for all dental hygiene actions.

As dental hygienists supporting patient-centered, evidence-based care, we must be analytical and synthesize the knowledge we have to solve the problems we face in the treatment of clients. We must be critical of research conclusions in order to support our treatment decisions. Our responsibility to be accountable for our actions and to insure that our services promote the health and well-being of our patients means that we should continually evaluate the acceptability of the treatment plan, our patient's oral health status, and their satisfaction with the care rendered.

This can be achieved by a simple conversation with the patient, or through more detailed questions, observations, or surveys.

Our task for the future is to document dental hygiene interventions and their outcomes and to let the world know who we are and what we do. The science of dental hygiene that drives our clinical practice must continue to be researched and compiled.

Being a part of interdisciplinary health care means that we must develop our own "identity" and "domain" and be able to "bring something to the table". As educators, it is your responsibility to support the profession and the association in achieving these goals and spreading the word to students. Students are the future of the profession and the association and must be nurtured. I feel confident that together, we can achieve harmony in health care as we approach the next millennium.

“The dental hygiene process of care is inherent in our discipline and involves the assessment, diagnosis, planning, implementation and evaluation of care.”

NEW PRODUCTS

Optiva Corporation Introduces a New Sonic Dental Hygiene Toothbrush — Sonicare®



Sonicare® — The Sonic Toothbrush

Sonicare® is the first sonic toothbrush to use sonic technology to help prevent and combat periodontal disease. Sonicare, the sonic toothbrush that removes plaque bacteria where it lurks — between the teeth and below the gumline — is now available in Canada. Integrating patented, high-performance sonic wave and computer technology,

this revolutionary toothbrush from Optiva Corporation is the latest example of the transfer of these technologies to the home for consumer use.

Sonicare® is clinically proven to remove plaque bacteria from hard-to-reach places (such as between teeth and below the gumline), reverse gingivitis, reduce bleeding and help shrink periodontal pockets. What makes Sonicare different from conventional power brushes is that it uses sonic technology to generate high-frequency brush strokes (31,000 per minute), thereby creating sound waves in the

fluids around the teeth. These sonic waves travel three to four millimetres beyond the tips of the bristles to remove hidden plaque bacteria between teeth and below the gumline, where no bristles can reach.

Some harmful bacteria in the mouth have fimbriae — “finger-like” projections — that grab and stick to tooth enamel and gums, causing plaque build-up. Sonicare’s sonic waves are so powerful that they loosen and remove the fimbriae. Without these “fingers” bacteria can’t cling to teeth and gums, and are washed away.

Sonicare operates one hundred times faster than a manual toothbrush and is more effective in combating and preventing periodontal disease, yet studies show that Sonicare’s sonic cleaning is as gentle as a soft manual toothbrush.

For more information on Sonicare, contact:

Optiva Corporation
13222 SE 30th Street
Bellevue, WA 98005
1-800-SONICARE (766-4227)
or by visiting Sonicare’s web site at <http://www.sonicare.com>

111

New Children’s Fever Medicine Launches in Canada

A leading Canadian manufacturer of over-the-counter medications announced the launch of Children’s MOTRIN® Ibuprofen Suspension. McNeil Consumer Products Company, Guelph, Ontario introduced Children’s MOTRIN earlier this year in pharmacies across Canada in response to consumer demand for fast-acting, long-lasting fever reduction.

Children’s MOTRIN is a patented pleasant-tasting formula which offers the benefits of eight-hour dosing along with superior fever

reduction and long-lasting pain relief. The product is indicated for the relief of fever, the aches and pains due to sore throat, earache, colds or flu, headache, toothache, immunization, body aches, sprains and strains.

For information about MOTRIN, health care professionals may contact MOTRIN’s Consumer Information Centre at its special toll-free telephone number, 1-888-6MOTRIN. The centre is open Monday to Friday from 8:15 a.m. to 8:00 p.m., EST.

A Smile is Forever

Bright Smiles introduces a gift containing oral care products, which promotes oral hygiene and education at the earliest age possible. The kit contains detailed home care instructions for parents; safety teething ring; safety toothbrush; Orajel tooth and gum cleaner; Orajel fast teething pain relief gel; an embroidered terry cloth bib with a picture of a happy tooth that reads “A Smile is Forever”; a white terry wash cloth for rubbing gums; and a one piece moulded pacifier. The gifts are

contained in a giant clear reusable baby bottle bank, which comes in pink, blue, green or yellow. This practice builder includes a congratulatory postcard to send out to patients who have become new parents.

For more information contact:
Bright Smiles, 8937 S.E. Colony St. Hobe Sound, Florida, 33455
(561) 546-1819.



**MIDLAND
WALWYN**
BLUE CHIP THINKING™

Turning Investment Anxiety into a Financial Opportunity

Many market experts say that real losers in the October 1987 market crash were the investors who got through on the phone lines and were actually able to sell their shares at the end of the day.

Convincing yourself to hang in when market volatility occurs and you sense the bear's encroachment onto your investment turf could easily be the wisest investment decision you will ever make. Here are ten ways to hold your ground — and reduce investing stress while staying the course.

1. Understand the fear of financial losses has a greater emotional impact on investors than the joy that gains can bring. Investors can be extraordinarily short-sighted, even when faced with historical evidence. As one educator said, "A loss of \$1,000 feels about twice as bad as the gain of \$1,000 feels good."
2. Make sure you are diversified between short term investments, bonds and stocks. In turn, diversify your equity holdings remembering that international investments generally tend to be riskier than North American investments.
3. Get comfortable with the day-to-day volatility they may encounter. Determine your personal investment risk comfort level.
4. By investing over the long-term, the less short-term fluctuations become a factor. Thinking long-term can help calm fears generated by short-term market shifts.
5. Firmly deny your "gut instinct" which encourages you to try to time the market. Ask your financial advisor to show you the evidence about the potential long-term ravages on their portfolios of market timing. He or she will probably show you that the market has an "upward bias". For every bad day, there are three good ones. The odds of missing the good days when your money is "on the bench" are greater than their changes of missing the bad days. Also, some of the best days in the market have immediately followed the worst days.

6. Selling can yield a large tax bill. Capital gains implications vary with each investor but need to be thought through before any sales are made.
7. Never count on strong investment performance. Between 1926 and 1996, stocks have returned 10.5 percent annually. Yet, during 1995 and 1996, common stocks returned an average of 30.1 percent. To settle down and enjoy the ride, you should understand that past performance is no guarantee of future performance.
8. Revisit (but don't necessarily revise) your investment program if market volatility concerns you. Confirm your investment objectives. If you don't have a strategy and have started to invest at the top of the market, your advisor can potentially protect your portfolio through diversification.
9. Remember that history has shown that the most successful investment strategies are the result of long-term planning and discipline.
10. Repeat Number 9.

Finally, consider the results of a recent investor survey. It concluded that 54 percent of 1,009 investors said they would not make any major changes in their stock holdings in the case of a significant stock market decline. Instead, they saw pullbacks as opportunities to buy shares at lower prices and reduce their average cost. (Source: Peter D. Hart Research Associates: *Nasdaq Survey*, 1997).

Market volatility will always be something to consider when investing either domestically or globally. Consult your financial advisor for more ideas on how to turn investing anxiety into a financial opportunity through long-term investment planning. You'll then have the satisfaction of feeling more in control of your financial future.

For additional information on long-term investment planning through the CDHA/Midland Walwyn Affinity Program, please call Midland Walwyn at 1-800-563-6623 or e-mail CDHA@midwal.ca

CDHA Welcomes Butler's Recognition for Dental Hygiene

CDHA's president Judy Clark congratulated John O. Butler company for its recent advertisement featured in the November 1997 edition of *Chatelaine* magazine. The innovative advertisement by the Butler Company which was to introduce the New Butler G.U.M. Super Tip Toothbrush slogan read: "It's so thorough it may even lessen the work of your dental hygienist."

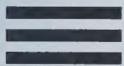
Butler's recent initiative provides strong support for the dental hygiene profession by acknowledging the dental hygienist as the oral health professional most likely to "influence" the public's use of toothbrushes.

Butler GUM Super Tip ad is displayed on page 118.

MAIL  POSTE

Canada Post Corporation
Société canadienne des postes
Postage paid Port payé
if mailed in Canada si posté au Canada
Business Reply Réponse d'affaires

0103364699 01



0103364699-M5J2W5-BR01

ATT: AFFINITY SERVICES
MIDLAND WALWYN
PO BOX 19009 STN BRM B
TORONTO ON M7Y 3M9

Retire from work, not life.

Name _____

Address _____

City _____ Prov. _____

Postal Code _____

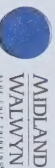
Phone (Res.) () _____
(Bus.) () _____

I am currently a Midland Walwyn
client: ☐ Yes ☐ No

My Financial Advisor's name is: _____

Fax: (416) 368-6011

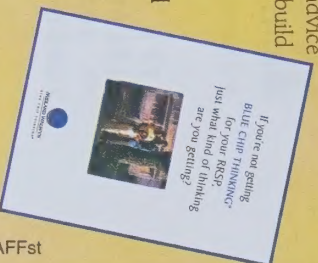
e-mail CDHA@midwal.ca



As CDHA's recommended financial advisor, Midland Walwyn provides uniquely tailored RRSF solutions to meet the needs of CDHA members. If you need a Self Directed RRSF, we offer a 50% savings on the annual administration fees to you, your staff and family members, or you can choose a no fee RRSF. Both provide you with the advice and flexibility you need to build financial independence.

**To receive your complete
RRSF information kit, mail
or fax this postage paid
reply card or call us at:**

1 800 563-6623



@BLUE CHIP THINKING is a Registered trademark of Midland Walwyn Capital Inc. Midland Walwyn is a member - CIPF



The power to
reach your goals
from the
world's largest
mutual fund company

Over 12 million investors like you share the strength of Fidelity Investments. In fact, we've been helping investors achieve their goals for over 50 years. As the recommended financial advisor to the **CDHA**, Midland Walwyn Capital Inc. draws upon Fidelity's global presence and full range of mutual funds to help meet all your investment needs. *Call 1 800 563-6623 for details on how this partnership can benefit you.*



**MIDLAND
WALWYN**
BLUE CHIP THINKING™



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION
L'ASSOCIATION CANADIENNE
DES HYGIENISTES DENTAIRE

™BLUE CHIP THINKING is a trademark of Midland Walwyn Capital Inc. Midland Walwyn is a member of the Canadian Investor Protection Fund. Read the important information in a fund's prospectus before investing.



Fidelity



Investments®

Strength From The World's Largest Mutual Fund Company

The Use of Tongue Cleaners in the Treatment of Halitosis

By Leanne Carlson-Mann, Dip.D.T., Dip.D.H., Contributing Editor

114

Many books and articles have dealt with the topic of unnecessary breath malodour and in recent years many clinics have appeared to deal with this increasing problem. Up to sixty per cent of the population experiences oral malodour and many people are spending money on remedies that don't address the problem sufficiently.

Causes of Malodour

- Dental disease.
- Medical conditions such as hiatus hernia, diabetes, sinusitis, infected tonsils.
- Alcohol and certain drugs such as tranquilizers.
- Hormonal changes, especially during a woman's menstruation.
- Stress resulting in a dry mouth and a thick coating on the tongue.
- Hunger odour (ketosis), especially in individuals who eat irregularly.
- Xerostomia or chronic dry mouth.
- Bacteria that is present in the mouth, throat and lungs, or sinuses.
- Foods such as garlic and onions.
- Subjective halitosis which is a condition where individuals have a distorted sense of smell and believe they have halitosis, while others can detect no odour.

Treatment Do's and Don'ts For Your Clients

DO'S:

- Clients should visit a dental office regularly to have their teeth cleaned by a hygienist.
- They need to floss or otherwise clean between teeth as recommended by a dentist. Unscented floss is recommended so that clients can detect those areas between their teeth that give off odours, and clean them more carefully.
- Provide instruction so that their teeth and gums are brushed properly.
- Recommend a tongue cleaner for the client. Their tongue needs gentle but thorough cleaning all the way to the back.
- Advise them to drink plenty of liquids.
- Recommend chewing sugar-free gum for a minute or two at a time, especially if their mouth feels dry.
- Have clients clean their mouth after eating or drinking milk products, fish or meat.
- Unless advised otherwise, clients should soak their dentures in antiseptic solution.

- Have a client's family member or friend help them by advising them in a kind manner whenever they have bad breath.
- If someone you know has bad breath and you can't tell them directly, leave this article around for their attention.
- Recommend a mouthwash which has been proven to be clinically effective in fighting bad breath. Advise your clients that its most effective use is right before sleeping.
- Advise clients to eat fresh, fibrous vegetables such as carrots.
- Encourage your client to not let the concern about having bad breath run their life.

DON'TS

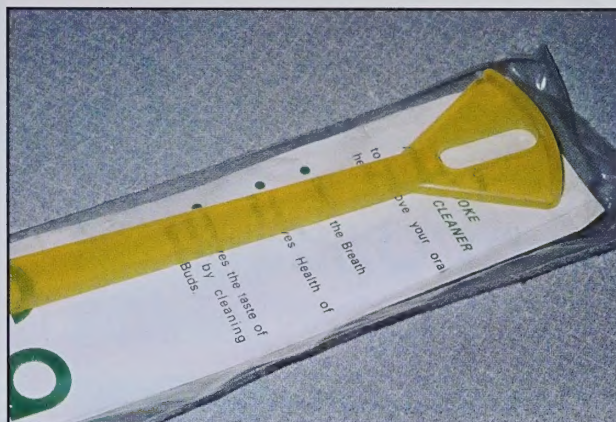
- Don't let your client become passive.
- Client's should not be depressed. Instead advise them to get help. They shouldn't ignore their gums either — edentulous clients can still have bad breath.
- Advise client's to not drink too much coffee — it may make the situation worse.
- Client's can't forget to clean behind the back teeth in each row.
- Clients shouldn't run to the gastroenterologist for concerns of having bad breath — it usually comes from the mouth and almost never from the stomach.
- Mouthwash should not be given to very young children since they might swallow it.
- The tongue should not be cleaned so vigorously that it hurts.
- Advise your clients to not rely on mouthwash alone. They need to practice complete oral hygiene that includes regular brushing and flossing in addition to rinsing as needed with a recommended mouthwash.



Breath-So-Fresh™ tongue cleaner.



Breath-So-Fresh™ tongue cleaner in use.



An older style tongue cleaner.

Why is cleaning the tongue important in the treatment of oral malodour ?

- Tongue cleaning removes the coating responsible for eighty-five percent of cases of oral malodour, even when no evidence of periodontal disease exists.
- The posterior third of the tongue is the most likely to act as a reservoir of anaerobic periodontopathogens that also contribute to oral malodour.
- The average amount of tongue coating in clients with periodontal disease is six times greater than in healthy individuals.
- The methyl mercaptan has been shown not only to cause odour but also inhibit collagen synthesis, alter periodontal ligament cell function, break down the oral mucosa and possible lead to bacterial invasion.

What can your clients do about this?

In this author's opinion, many people spend money unnecessarily and to no avail. New tongue cleaners that are available are easy for clients to use and for dental office staff to implement in their practice.

References

1. Quirynen, M., Mongardini, C., van Steenberghe, D. "The Effect of One Stage Full Mouth Disinfection on Oral Malodor and Microbial Colonization of the Tongue in Periodontitis Patients." Third International Conference on Breath Odor 1997: 26.
2. Rosenberg, M. "Clinical Assessment of Bad Breath: Current Concepts." *JADA* 1996; 127: 475-482.
3. McCann, D. "Halitosis research Spans the Globe." *ADA News* 1997; 28(11): 1-18.
4. Yaegaki, K., Sanada, K. "Volatile Sulfur Compounds in Mouth Air From Clinically Healthy Subjects and Patients With Periodontal Disease." *J Periodontol Res* 1992; 27(4): 233-238.
5. Bosy, A., Kulkarni, G.V., Rosenberg, M., McCulloch, C.A.G. "Relationship of Oral Malodor to Periodontitis: Evidence of Independence in Discrete Subpopulations." *J Periodontol* 1994; 65: 37-46.
6. Johnson, P.W., Ng, W. and Tonzetich, J. "Modulation of Human Gingival Fibroblast Cell Metabolism by Methyl Mercaptan." *J Periodontol Res* 1992; 27(5): 476-483.
7. Glass-Brudzinski, J., Brunette, D.M. "Effects of VSC on Gingival Fibroblast and Epithelial Cell Cytoskeleton." Third International Conference on Breath Odor 1997: 45.
8. Lancero, H., Niu, J.J. and Johnson, P.W. "Methyl Mercaptan Alters Periodontal Ligament Cell Function." Third International Conference on Breath Odor 1997: 19.

115

JUNE 19-21, 1998

CHARLOTTETOWN, PEI

**WELCOME TO OUR ISLAND.
LET US ENTERTAIN YOU!**

The CDHA '98 Local Organizing Committee has been working very hard to organize a highly educational scientific program, while at the same time, taking special care to ensure that you have a memorable, fun-filled experience in Charlottetown.

One special highlight in our social program is a Lobster Supper on Saturday night at the Confederation Centre. You'll be serenaded by the finest Maritime entertainment, you'll feast on the most succulent lobster available in the world, and you'll have a whopping good time with all your friends and colleagues.

So come prepared to tie on your best bib, (forget the tucker), and kick up your heels, cuz we plan to have a PEI good time!

9th Annual Professional
conference

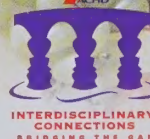


Photo: Lionel Stevenson

CDHA NATIONAL Conference 1998

Program Update

FRIDAY JUNE 19, 1998

Legislative Consultation Session

Individual sessions for members of non self-regulation provinces to be held during the conference. Check registration desk for times and locations.

CONFERENCE

1:00-1:15 p.m.

Opening Ceremonies

A Royal Welcome to Prince Edward Island

1:15-1:45 p.m.

Introductory Address

"Prince Edward Island: The Birthplace of Canada and Anne" with Dr. Epperly, Ph.D., President University of Prince Edward Island.



DR. EPPERLEY, PH.D.,
PRESIDENT UPEI

Dr. Elizabeth Rollins Epperly is the fourth President and Vice-Chancellor of the University of Prince Edward Island, a position she has held since 1995. When she returned to UPEI in 1992, Dr. Epperly founded the Lucy Maud Montgomery Institute. The author of four books and dozens of articles, Dr. Epperly has been an English Professor for two decades.

Please join us on this fascinating journey through PEI, and the legendary tale of Anne of Green Gables.

2:00-3:45 p.m.

"Interdisciplinary Approaches to Teaching, Research and Service Through a Collaborative Model"

6:30 p.m.

President's Reception

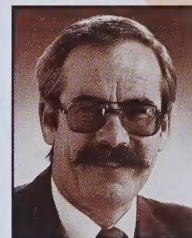
All registrants are invited to join the CDHA President, Executive and Board of Directors for an evening of gastronomique delights and unique PEI entertainment.

KEYNOTE SPEAKERS/PANELISTS



LINDA KRAEMER, PH.D.
(Panel Chair)

Senior Associate Dean,
College of Health Professionals,
Thomas Jefferson University,
Philadelphia, U.S.A



KEVIN LYONS, PH.D.

Director and Associate Dean,
Center for Collaborative Research,
Thomas Jefferson University
Philadelphia, U.S.A.



MAXINE BOROWKO, RDH

Fraser Valley and Simon Fraser
Health Regions
Abbotsford, B.C.



SANDRA COBBAN, RDH

Program Development
Consultant, Aspen Regional
Health Authority
Morinville, Alberta

SATURDAY A.M. SESSIONS

7:00 a.m.

Continental Breakfast

10:30-12:00 p.m.

Meeting of the Dental Hygiene Educators
Canada (DHEC)

10:00-3:30 p.m.

Commercial Exhibits

10:00 a.m.

Refreshment/Commercial Exhibit Break

10:30 a.m.

Free Papers

12:00 p.m.

Buffet Luncheon — Commercial Exhibits



MARIA PERNO MCKENZIE, RDH, B.A., M.SC.,
PRESIDENT, AMERICAN DENTAL
HYGIENISTS ASSOCIATION (ADHA)

"Women's Oral Health Issues"

Sponsored by Colgate

8:30-10:30 a.m.



MARILYN GOULDING, DIP.D.H., B.SC.
(Panel Chair)

"Periodontal Case Presentations" (An Innovative,
Interactive touch-technology session on Periodontics)
Fort Erie, ON

*Sponsored by Warner Lambert (Limited attendance
— 75 persons — Pre-registration required)*

8:30-10:00 a.m.



HARDY LIMEBACK, B.SC., D.D.S., PH.D.,
PROFESSOR, UNIVERSITY OF TORONTO,
FACULTY OF DENTISTRY
(Panel Chair)

"Fluoride — The Good, The Bad and the Ugly"
Toronto, ON

10:30 a.m.-12:00 p.m.

SATURDAY P.M. SESSIONS

- 1:30 p.m.** Community Connections
3:00 p.m. Commercial Exhibit Break
3:30 p.m. Commercial Table Clinics
6:00 p.m. Social Gala — Lobster Supper, Maritime Entertainment! Confederation Center

Throughout the Day

Poster Presentation displayed on the Mezzanine level.



HARDY LIMEBACK, B.Sc., D.D.S., Ph.D.,
PROFESSOR, UNIVERSITY OF TORONTO,
FACULTY OF DENTISTRY
(Panel Chair)

"The Dental Hygienist's Answers to Questions About Toothpaste, Mouthwash and Whiteners"

Toronto, ON

1:30-3:00 p.m.



MARILYN GOULDING, DIP.D.H., B.Sc.
(Panel Chair)

"Periodontal Case Presentations"
 (An innovative, interactive touch-technology session on Periodontics)

Fort Erie, ON

Sponsored by Warner Lambert (Limited attendance — 75 persons — Pre-registration required)

3:30-5:00 p.m.



BARBARA HEISTERMAN, RDH, EDH

"The Dental Hygienist — Multidisciplinary Team Player in Residential Care Facilities"

Vancouver, BC

3:30-5:00 p.m.

SUNDAY A.M. SESSIONS



MARIA PERNO MCKENZIE, RDH, B.A., M.Sc.,
PRESIDENT, AMERICAN DENTAL HYGIENISTS
ASSOCIATION (ADHA)

"Women, Politics and Cancer: Who is in Charge?"

Sponsored by Colgate

8:30-10:30 a.m.



THERESE GIROUX, C.F.P., R.F.P.

"Financial Planning for Women"

Senior Vice President, Retirement and Estate Services, Midland Walwyn Capital Inc.

Sponsored by Midland Walwyn Capital Inc.
 (Pre-registration required)

10:30 a.m.-12:00 p.m.



SANDRA COBBAN, RDH
AND JOANNE CLOVIS,
DIP.D.H., B.ED., M.Sc.

"Linking Private Practice with the Community"

10:30 a.m.-12:00 p.m.



HELEN BISHOP MACDONALD,
DAIRY FARMERS OF CANADA

"Nutrition: Womb to Tomb"

(This presentation will cover nutrition through the various life stages with emphasis on ways in which the dental hygienist and dietitian can work together. A look at the myths present in the area of nutrition)

Sponsored by Dairy Farmers of Canada

10:30 a.m.-12:00 p.m.

10:00 a.m.

Commercial Exhibit Break

12:00 p.m.

Awards Luncheon (An opportunity to relax and network with colleagues and friends!)

CDHA NATIONAL
Conference

Beautiful Castlegar, BC

Busy, well-established family practice in pleasant town close to the U.S. border seeks full-time Dental Hygienist. Call Pat at (250) 365-2424.

Yellowknife, N.W.T.

Full-time Dental Hygienist required immediately for a clinic in the city of Yellowknife, N.W.T. A great recreation area. The practice is modern and friendly. Seeking organized, reliable and outgoing individual. Please send resumes to: Dr. H.A.J. Biati and Associates, Box 1178, Yellowknife, N.W.T., X1A 2N8. Tel. (867) 873-4578 or Fax (867) 873-0650.

Uniform Catalogue

Look your best in comfortable, casual co-ordinates from top uniform manufacturers. Great fit, top quality and competitive pricing make for super value. Phone toll-free for your complimentary catalogue at 1-888-820-0031.

THE QUALITY ALTERNATIVE.

ATTENTION:

Dental Hygiene Component/ District Associations

Are you aware that Teledyne Water Pik Canada sponsors Dental Education programmes?

Find out how you can benefit. For details regarding scientifically based course materials and availability, please contact

Marsha Stein, Manager Professional Relations
Teledyne Water Pik Canada
35 Grand Marshall Drive
Scarborough, Ontario M1B 5W9

Telephone: (416) 284-1393 or 1-800-268-9656
Fax: (416) 284-8757
E-mail: mrstein@ican.net

Duncan, BC (Vancouver Island)

WANTED: Full-time Registered Dental Hygienist to live and work in beautiful Duncan, BC (Vancouver Island). Please fax resume and hand written cover letter to (250) 748-9868 explaining your ideal dental office and your expectations.

Cranbrook, BC

Friendly and outgoing Family Dental Practice requires a full-time hygienist of the same mind frame. Please fax your resume to (250) 489-3265, call (250) 426-5865, or mail to Dr. Ben Gibson, Suite 201-44 12th Avenue South, Cranbrook, BC V1C 2R7

NEW

BUTLER **G·U·M**

**SUPER
TIP**

**IT'S SO
THOROUGH
IT MAY EVEN
LESSEN
THE WORK
OF YOUR
DENTAL
HYGIENIST.**



L'ACHD a votre avenir assuré.

Les accidents se produisent, c'est pourquoi le régime d'assurance conçu pour les hygiénistes dentaires canadiens (RAHDC) offre toute l'assurance dont vous aurez besoin. RAHDC est spécifiquement conçu pour répondre aux besoins de la famille d'aujourd'hui en cas de

tragédies, de blessures inattendues ou de coûts médicaux non assurés.

En partenariat avec La Sun Life du Canada, le plan répondra à vos besoins d'assurance - aujourd'hui et demain.



Pour plus de renseignements ou pour une protection supplémentaire, veuillez communiquer avec:



1-800-669-7921 ou le
(416) 408-7390

RAHDC - LE RÉGIME D'ASSURANCE CONÇU POUR LES HYGIÉNISTES DENTAIRES CANADIENS

It may look like another electric toothbrush, until you turn it on.

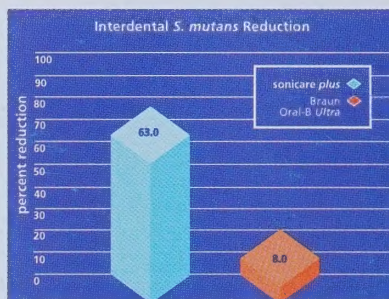


At 31,000 gentle brush strokes per minute, **sonicare**[®] cleans between teeth¹ and below the gumline.² Our high-speed brushing creates sonic waves that travel through toothpaste and saliva, creating mild cavitation that enables **sonicare** to clean places the bristles themselves don't reach. And it is more gentle than a soft manual brush.³



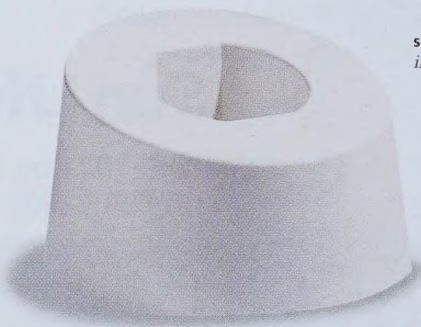
sonicare creates sonic waves that go where no ordinary brush has gone before.

In fact, **sonicare** removes plaque bacteria 3mm *beyond the reach of the bristles*.^{TM4} Like interproximal *S. mutans*, the leading cause of dental caries.^{5,6} It even removes a leading cause of periodontal disease, *P. gingivalis*, below the gumline.⁷ And it removes both better than the Braun Oral-B Plaque Remover.^{6,7}



sonicare plusTM is superior to Braun Oral-B UltraTM in reducing interdental cariogenic microflora.⁶

Call **1 800 363-2876** for clinical studies and more information. Ask about our special 30-day, free trial offer for dental professionals. Better yet, ask your peers. 98 out of 100 who have tried **sonicare** recommend it.⁸ And in our business, word of mouth is everything.



sonicare[®]
the **sonic** toothbrush

1. Tritten CB, Armitage GC. *J Clin Periodontol*. 1996;23:641-648. (University of California, SF). 2. Ho HP, Niederman R. *J Clin Dent*. 1997;8:15-19. (Harvard University). 3. Imfeld, T, Senner B. *J Dental Res*. 1997. In Press. (University of Zürich). 4. Stanford CM, Srikantha R, Wu CD. *J Clin Dent*. 1997;8:10-14. (University of Iowa). 5. Brambilla E, Felloni A, Cagetti M, Gagliani M, Strohmer L. *J Dent Res*. 1997. In Press. (University of Milan). 6. Brambilla E, Felloni A, Cagetti M, Strohmer L. *J Dent Res*. 1998. In Press. (University of Milan). 7. Robinson PJ, Maddalozzo D, Simonson L, Breslin S. *J Clin Dent*. 1997;8:4-9. In Press. (Northwestern University). 8. Based on 14,783 survey respondents in the U.S.A.

The Canadian Dental Hygienists Association

PROBE

JOURNAL

de l'Association canadienne des hygiénistes dentaires

July/August 1998 vol. 32 no. 4

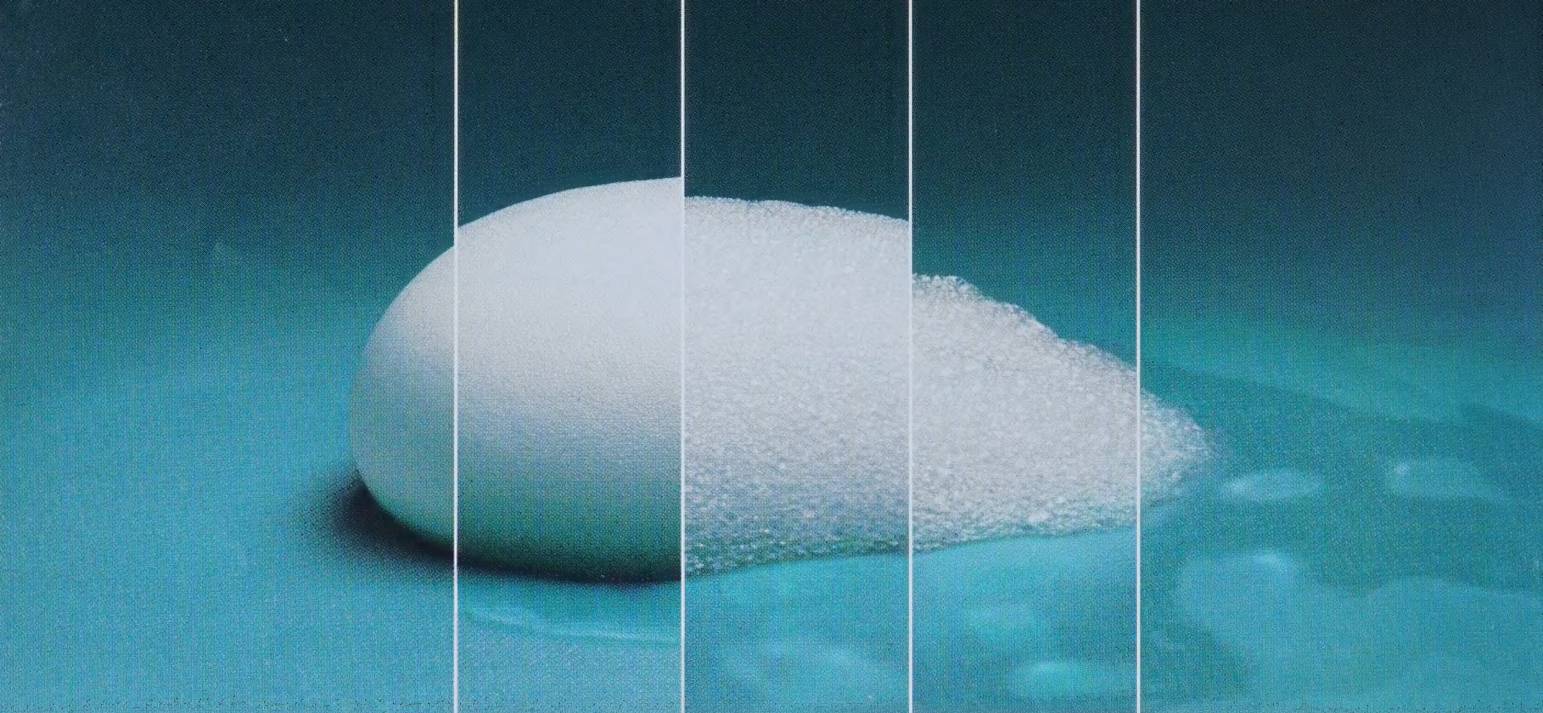
Prevention of Bacterial Endocarditis

Feature Article: The Honduras Adventure



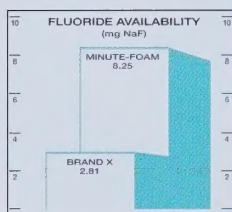
DENTAL LIBRARY
UNIVERSITY OF TORONTO
124 EDWARD ST.
TORONTO M5G 1G6
ONTARIO, CANADA





ALL FOAMS RISE. ONLY THE BEST FALLS.

Seconds after rising to a light, airy consistency, Minute-Foam® is already hard at work breaking down into an



*Minute-Foam releases 190% more fluoride than a thicker foam.**

effective, flowable fluoride treatment. Why? Because fluoride availability is optimized

when foam liquifies. So while other foams seem to just sit there, Minute-Foam is on

the move — delivering outstanding fluoride uptake (12,631 ppm F in just

one minute).¹ In fact, it's the only one-minute foam with published scientific data that proves its

efficacy.^{1,2} The proof is also with your patients. They'll love the way it feels, and how it tastes even

better with five great flavors, including new Raspberry Blast. So don't fall for anything but the

best. Call 1 800 268-5217 to place an order or contact your authorized Oral-B dental dealer.



ADVANCING THE SCIENCE OF TOOTH AND GUM CARE.



Respect

By Donna Bowes, Dip.D.H.



I look forward to my term as President of the CDHA and plan to share some of my concerns and observations with you through these articles in Probe. I hope you will voice your opinions through letters to the editor and consider sharing your unique experiences with your colleagues by submitting articles for publication.

Whether it's Aretha Franklin's hit song or Rodney Dangerfield's lament, "I don't get no respect", we can all relate to the sentiment. The word "respect" keeps coming to mind these days as I read letters to the editors and postings on the Internet from dentists about to dental hygienists. Comments range from the caustic to the sarcastic, but all are characterised by a lack of consideration or courtesy for dental hygiene as a profession. I would like to believe that the dentists who choose to communicate through these mediums are just a few disgruntled individuals, but I am afraid that what I am seeing is just the tip of the iceberg.

The more I think about the symptoms, the more convinced I am that what is happening is a direct result of our rapidly changing health care system. Other than the relatively small numbers involved within the public health sector, dentistry has always been able to remain separate from the rest of the health care system due to its focus on fee-for-service delivery within private office settings.

We are all aware that the health care system is going through considerable turmoil. Words such as restructure, reconfigure, reform, managed care and decentralization are coming to mean the end of health care as we have known it. We are entering an era in which the focus will be on outcomes and value for money, along with local community empowerment. In the opinion of Ted Ball, an expert in restructuring of human delivery systems, the "hierarchical centralized bureaucracies¹" of the past will not "function well in the rapidly changing, information rich, knowledge-intensive society and economy of the late 90s" and into the next century. The key principles and elements in health care reform are flexibility, an emphasis on maintenance and improvement of health, client-centred care, client choice of provider, accessibility, availability, evaluation and evidence-based decision-making, coordination and information, interdisciplinary team care, and accountability.

Although hospital closures are the most obvious outcome of the changes which are sweeping the country, so too is the increased emphasis on initiating self-regulation for maturing and newly evolving health care professions. Change management scholars refer to the point in time when systems are undergoing fundamental transformation as the point of "bifurcation" when we are trapped between an old system that is still in place and a new system that is emerging. We are at that point now in our profession, when self-regulation and managed care issues are starting to make a distinct impact in the world of private practice dentistry.

In my readings about managing change I discovered that the normal stages of change include denial, resistance, exploration and commitment. The emerging health care environment with its emphasis on interdisciplinary team care is a totally new concept to those who have always dealt with a "team" as one which incorporates a hierarchical mode of decision-making. I truly believe that the dental profession and the dental hygiene profession are at completely different stages of change at the current time. I suspect that many dentists, and even some dental hygienists, have not yet progressed through the stages of denial and resistance. The majority of dental hygienists, and some dentists are venturing into the stage of exploration, while some have moved into the final stage of commitment to the evolving health care environment.

So where does respect come into play? According to *Webster's Dictionary* the verb transitive of respect, "to hold in high estimation or honour; to treat with consideration; to avoid interfering with or intruding upon; to have reference or regard to", describe perfectly what Aretha and Rodney refer to in their usage of the word, and most certainly describe what dental hygienists seem to be failing to receive in their current relationship with the profession of dentistry. While this is worrisome, it is also something which must be acknowledged and addressed through communication and negotiating agreement at a variety of levels.

Authors, Roger Fisher and William Ury, in their best-seller, *Getting to Yes*² suggest the following four steps which can be used under almost any circumstance to come to agreement:

1. Separate the people from the problem.
2. Focus on interests, not positions.
3. Generate a variety of possibilities before deciding what to do.
4. Insist that the result be based on some objective standard.

Perhaps by following these steps, each of us, whether it be at the personal or organizational level, can begin to build collegial and respectful relationships which will enable us to meet our mutual goal of optimal oral health for all Canadians.

References

1. Ted Ball, "Nibbling At the Edges", *Quantum Solutions*
2. R. Fisher and W. Ury, *Getting to Yes*, 1991, Penguin Books USA, New York



Donna Bowes received her Dental Hygiene Diploma in 1980 from Algonquin College in Ottawa, Ontario, and her Diploma in Gerontology in 1989 from Georgian College in Barrie, Ontario. She has been employed in private practice and public health since 1980 and has a particular interest in working with long-term and palliative care.

ANOTHER INNOVATION FROM *Johnson & Johnson*



How people feel about flossing depends on the floss.

Getting patients to floss daily is difficult. To meet the challenge, REACH® Oral Care from JOHNSON & JOHNSON offers the most types and flavours of floss, helping to satisfy virtually every patient's specific needs and increase their compliance.

REACH® EASY SLIDE™

is ideal for patients with tightly-spaced teeth or who have had extensive restoration. Specially designed to slide more easily between teeth with a broad cleaning surface, NEW REACH® EASY SLIDE™ can help improve compliance. In product testing patients preferred REACH® EASY SLIDE™ because it didn't shred, it was gentle on gingival tissue and it slid easily between teeth. REACH® EASY SLIDE™ Dental Floss is made from expanded polytetrafluoroethylene (e-PTFE), the same material that is used to make Teflon®†.



REACH® GENTLE GUM CARE

is for patients with sensitive gingival tissues. Its patented woven construction expands to trap and remove plaque particles, yet is gentle on gingival tissue and fingers, too. In

a product test, two-thirds of infrequent flossers were converted to frequent flossers after trying REACH® GENTLE GUM CARE. Patented MICRODENT® delivers a burst of mint taste for a clean, fresh feeling.



REACH® FLOSS FOR KIDS

is a gentle floss with a grape flavour kids will love. It's ideal for a child's changing dentition, and the fun flavour helps establish a life-long, healthy habit of flossing.



For more product information and a sample: 1-888-YU-FLOSS (1-888-983-5677).

To place an order call your JOHNSON & JOHNSON Authorized Dental Distributor today.

"Recognized by the Canadian Dental Association"



Johnson & Johnson INC.

PROFESSIONAL SERVICES DEPT.
QUALITY, INNOVATION AND TRUST IN ORAL CARE

WIDELY AVAILABLE Like other Johnson & Johnson products, patients will be able to find REACH® EASY SLIDE™ and REACH® GENTLE GUM CARE in a store near them.

™/® Trademarks of JOHNSON & JOHNSON used under license. © JOHNSON & JOHNSON Inc. 1997.
†Teflon® is a registered trademark of E. I. Du Pont De Nemours and Company.

123 PRESIDENT'S MESSAGE

Respect

By Donna Bowes, Dip.D.H.

CDHIP — INSURANCE PLAN/ RAHDC — RÉGIME D'ASSURANCE

126 Protect yourself. Protect your future.

151 Protégez-vous. Protégez votre carrière.

127 NEWS

130 PRACTICE PROFILE

Have Scalers, Will Travel:

A Mobile Dental Hygiene Service for
the Dentally Phobic, Mentally Challenged

Featuring Mara Sand, RDH

131 SCIENTIFIC

Prevention of Bacterial Endocarditis

Recommendations by the
American Heart Association

By Adnan S. Dajani et al.

SELF-ASSESSMENT TEST/ EXAMEN AUTO-ÉVALUATION

138 Sample questions from the National
Dental Hygiene Certification Board.

150 Exemple de questions du Bureau national
de la certification en hygiène dentaire.

FEATURE ARTICLES

139 Ready, Set, Go!

Part I: Oral Health Needs Assessment
of Long-Term Care Facilities and
Nursing Homes in Perth County

By Virginia Perry, RDH

FEATURE ARTICLES

142 Continuing Competence:
What Is It? How Can It Be Measured?
By Margaret Wilson, RDH

145 The Honduras Adventure
By Donna Kittle, B.Sc., RDH

147 ABSTRACT

Can One Acquire Periodontal Bacteria
and Periodontitis from a Family Member?

Reviewed by Carol Barr Overholt, Dip. D.H.,
Contributing Editor

INFORMATION

148 Probing the Net
By Karen Wolf, Dip.D.H.

Continuing Education Calendar

149 New Products

Lettre à la rédactrice

152 Midland Walwyn: Asset Allocation
John Abbott Graduates and Staff

153 Life Insurance
By Terry Kennedy, Sun Life Canada

Advertisers' Index

Probe Advertising Rates

154 Classifieds



COVER:

The Honduras Adventure —
delivering basic dental care
in a third-world country.

MANAGER, COMMUNICATIONS SERVICES: Angela J. Whelan, B.A.

EXECUTIVE DIRECTOR: C.M. Worobey, Dip.D.H.

EDITORIAL ADVISOR: K. Edwards, M.A.

CONTRIBUTORS

Carol Barr Overholt, Dip.D.H.

Leanne Carlson-Mann, Dip.D.T., Dip.D.H.

Karen Wolf, Dip.D.H.

EDITORIAL BOARD

Laura MacDonald, Dip.D.H., B.Sc.D., M.Ed.

B. Fortune, Dip.D.H.

Jane Waites, Dip.D.H.

L. Guest, Dip.D.H., B.H.Ed.

R. Lunn, Dip.D.H.

DESIGN: Edels-Marcotte

Published six times a year by The Canadian Dental Hygienists
Association, 96 Centrepoin Drive, Nepean, ON K2G 6B1
Tel (613) 224-5515

Canada Post Publications Mail Registration No. 5793

CANADIAN POSTMASTER: Notice of change of address
and undeliverables should be sent to:

Canadian Dental Hygienists Association

96 Centrepoin Drive,

Nepean, ON K2G 6B1

Subscriptions \$69.55 (GST included) in Canada, \$110.00 Cdn
for US and \$115.00 Cdn elsewhere. Fifty cents per issue is allocated
from membership fees for journal production. All statements are
those of the authors and do not necessarily represent the CDHA,
its Board, or its staff.

ADVERTISING AND SUBSCRIPTIONS:

Keith Health Care Communications

1382 Hurontario St.

Mississauga, ON L5G 3H4

(905) 278-6700

CDHA 1998

6176 CN ISSN 0 834-1494

GST Registration No. R106845233

CDHA CENTRAL OFFICE STAFF

Executive Director: Carol Matheson Worobey
Manager, Communications Services: Angela J. Whelan
Manager, Finance and Administration: Monique Belleau Rock
Manager, Member Services: Sandra VanWart
Member Services Assistant: Louise Lalonde
Administrative Assistant: Shelly Minnie
Receptionist/Information Clerk: Francine Fortin

All CDHA members are invited to call the CDHA's Member Line
toll-free, with their questions/inquiries:

1-800-267-5235, Fax (613) 224-7283

Internet: <http://www.cdha.ca> E-mail: info@cdha.ca

We look forward to serving you.

The Canadian Dental Hygienists Association's Journal, *Probe*, is the
official publication of the CDHA. The CDHA invites submissions
of original research, discussion papers, and statements of opinions
pertinent to the dental hygiene profession. All manuscripts are refereed
anonymously. Contributions to *Probe* do not necessarily represent the
views of the CDHA, nor can the CDHA guarantee the authenticity
of the reported research. Copyright 1998. All materials subject to this
copyright may be photocopied for the non-commercial purpose of
scientific or educational advancement.



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION

L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRE

Protect yourself. Protect your career.

Your career is important to you, so you need to be protected against legal matters which could affect your future.

That is why The Canadian Dental Hygienists Association (CDHA) in partnership with F. Pigeon and Sons Insurance Brokers Ltd. provides coverage (malpractice) for an error,

omission or negligent act while rendering professional dental hygiene services.

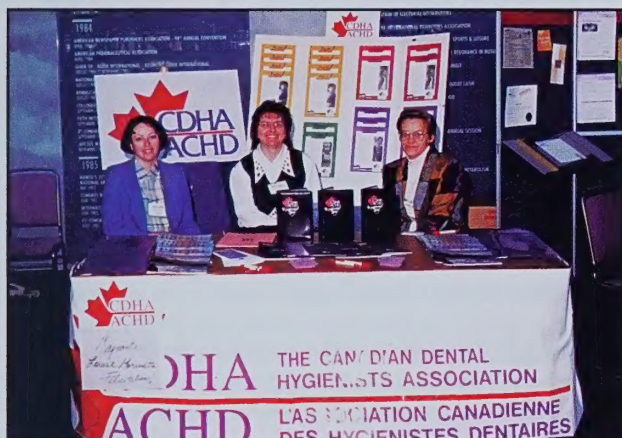
To further protect you, The CDHA has arranged for additional coverage for legal expenses due to disciplinary matters and claims relating to sexual abuse.

For more information or additional coverage, please call CDHA at (613) 224-5515.



F. PIGEON & fils
sons
COURTIERS D'ASSURANCE LTÉE/INSURANCE BROKERS LTD

CDHA Attends ODQ Convention in Montreal



CDHA's staff in attendance included, from left to right, Louise Lalonde, Assistant to Member Services, Angela J. Whelan, Manager of Communications Services, and Sandra VanWart, Manager of Member Services.

The Canadian Dental Hygienists Association was proud to take part in the 27th Annual Convention of the Ordre des dentistes du Québec (ODQ), which took place at the Montreal Convention

Centre between May 23rd and May 27th, 1998. In fact, this was the first time CDHA has mounted a display at the ODQ convention. The purpose of this year's display was to promote awareness of the association among the dental hygienist profession and other oral health care professionals in Québec. The convention was a unique opportunity for the CDHA members to exchange knowledge and familiarize themselves with new products. It was also an opportunity to meet some of ODQ's current members and other dental health care professionals, many of whom shared their views and enthusiastic support for the association.

The Canadian Dental Hygienists Association would like to extend its gratitude to Les journées dentaires du Québec, in particular Ms. Nycole Pagé for making CDHA's participation possible.

Altogether over 9,339 people attended, making this one of the largest conventions in North America.

Le prochain rendez-vous pour le 28^e congrès annuel de l'Ordre des dentistes du Québec se tiendra du 29 mai au 2 juin 1999.

The 28th annual convention of the Ordre des dentistes du Québec will take place on May 29th to June 2nd, 1999.

127

ASSISTANCE		ATTENDANCE
Dentistes	3258	Dentists
Hygiénistes dentaires	1106	Dental Hygienists
Assistant(e)s dentaires	1067	Dental Assistants
Auxiliaires dentaires	30	Dental Auxiliaries
Étudiant(e)s	1440	Students
Dentistes	370	Dentists
Hygiénistes dentaires	578	Dental Hygienists
Assistant(e)s dentaires	384	Dental Assistants
Technicien(ne)s dentaires	76	Dental Technicians
Secrétaires	32	Secretaries
Personnel administratif	669	Administrative Staff
Technicien(ne)s	89	Technicians
Conjoint(e)s	86	Spouses
Invité(e)s	296	Guests
Exposants	1298	Exhibitors
AU TOTAL	9339	TOTAL



Membership Information

*Watch for your
Membership Application
form in the September/
October issue of Probe.*

Former President and CDHA Life Member Receives Bachelor of Dental Science

By Hilary Thomson, Staff writer for The University of British Columbia UBC Reports, Congregation Issue, May 21, 1998 (vol. 44, issue 10)

128



Jo Gardner

At 72, Jo Gardner has achieved her lifelong personal goal — a degree in dental hygiene.

A former president of The Canadian Dental Hygienists Association from 1967–1968 and Life Member of the association, Gardner continues her contribution to the dental hygiene profession.

Gardner started her educational journey in 1947 with a certificate in dental hygiene from the University of Oregon. Last May marked another milestone when she received her Bachelor in Dental Science at a ceremony in the Chan Centre for the Performing Arts in Vancouver, BC. "I always regretted not having a degree," Gardner says. "It was a personal goal and I wanted to reach it."

At the time she received her certificate there were only two degree programs available, both in the U.S. Thoughts of pursuing further study were put aside when Gardner moved to B.C. in 1949 with her dentist husband. She worked as a dental assistant until dental hygiene was recognized as a profession by the province in 1952. She became the third dental hygienist to register in B.C., and spent the next 39 years in the profession. In 1992, after Gardner and her husband had retired to Madeira Park on the Sunshine Coast, the University of British Columbia started its dental hygiene degree program, one of only two in the country. Gardner signed up.

While getting to campus may have been a challenge, Gardner was on familiar territory once she got there, having taught part-time

in the dental hygiene diploma program from 1968 to 1986. Faculty members with whom she had taught were now her teachers. Her former students were now sharing classes with her. "In some classes they called me Mum," Gardner says.

Gardner helped draft the constitutions of both the British Columbia and The Canadian Dental Hygienists Associations and was one of the first presidents of both organizations. She also served on the executive board of the International Federation of Dental Hygienists. Gardner credits her husband and daughter with giving her the support she needed to complete her degree. "No education is wasted," she says. "It's stimulating and gives you a new outlook."

Now that she has her degree, Gardner intends to put it to use volunteering to teach dental care to a senior citizens' group.

A CDHA Life Membership may be granted to an active member of the association, who:

- has been a member for 15 consecutive years
- has been involved in dental hygiene at the national level in an official capacity for a minimum of 10 years
- has made an outstanding contribution to dental hygiene and the Association
- has been recommended in accordance with the by-laws of the Association
- has been approved by the Board of Directors.

L'OHDQ change de porte!



Veuillez prendre note que le siège social de l'Ordre des hygiénistes dentaires du Québec (OHDQ) a déménagé depuis le 1^{er} mai.
La nouvelle adresse de l'OHDQ est :

1290, rue St-Denis, bureau 300
Montréal (Québec)
H2X 3J7

Téléphone : (514) 284-7639
Sans frais : 1-800-361-2996
Télécopieur : (514) 284-3147



CDHA President 2000–2001 Call for Nominations

To fill the role of President of the Canadian Dental Hygienists Association during the 2000–2001 term. This position is part of a four-year commitment on Executive Council beginning in September 1998 as Vice-President and ending as Past President in the 2001–2002 term.

Candidates for this position should be able to demonstrate leadership skills through: career responsibilities, past involvement with provincial dental hygiene associations, and participation in the national organization. It is important that the candidate be familiar with the goals, objectives, council structure and organization of the CDHA.

Nominations should be accompanied with a curriculum vitae of the candidate and an outline of the offices held (provincial and national).

Please submit to Donna Bowes, CDHA President by September 4, 1998.

Canadian Dental Hygienists Association
96 Centrepointe Drive
Nepean, Ontario K2G 6B1

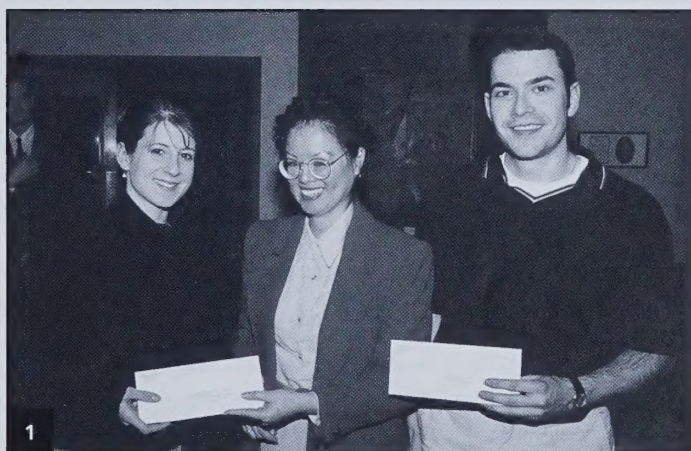
129

Dalhousie University Holds Its 28th Table Clinic Awards

On February 11th, 1998, Dalhousie University in Nova Scotia held its 28th Annual Student Table Clinics at the Dalhousie Dental School. Viewings ran from 5:00 to 8:30 p.m. Table clinic presentations are part of second-year Dental Hygiene curriculum. The subject matter may be based on a finished student research project or on an aspect of clinical practice.

The presentation of awards, beginning at 9:30 p.m., was followed by a wine and cheese social for students, faculty, alumni and staff. First place recipients were Lisa Dyer and Natalie Miller for their "Dental Implant Maintenance Care" presentation (photo not available). The award was sponsored by Dalhousie Dental Hygiene Student Society.

Maribel T. Reyes, President of the Nova Scotia Dental Hygienists Association (NSDHA) presented the awards for second and third places. Both these awards were sponsored by NSDHA.



1. Second place recipients were Vanessa Samson and Noel Farrell for "Administering Change: Why the Freeze-up on Dental Hygienists Giving Local Anesthetic in Nova Scotia".
2. Third place recipients were Cheryl Yeo and Nancy Winslow for "Pregnancy Granuloma".



Have Scalers, Will Travel:

A MOBILE DENTAL HYGIENE SERVICE FOR THE DENTALLY PHOBIC, MENTALLY CHALLENGED

Featuring Mara Sand, RDH

130



Mara Sand, RDH

Do you believe in customer service? Put that question to the average business person, such as the manager of a super-market, beauty parlour or auto repair shop, and you'll get a resounding "Yes!". Customer service is especially important to the health care professions. Yet we all know that customer service is often eroded by the pressure of our day-to-day practical world. The dental office environment with its high overheads, of

necessity limits the time allowed for treatment. For this reason many dental offices have difficulty accommodating the phobic and mentally challenged because, for example, a mentally challenged individual can sometimes consume two hours of effort to provide what would have been a 15-minute scaling for most patients.

I graduated from Vancouver Community College in 1991 with a Diploma in Dental Hygiene. Having worked in a variety of settings, including private practice and public health, I presently work three days a week for the Kootenay Boundary Community Health Services Society, as the Community Dental Hygienist. I developed, and continue to provide, a mobile dental hygiene service for the dentally phobic and mentally challenged.

I chose to focus my independent practice on serving the dentally phobic and mentally challenged for several reasons. First, I feel a real

compassion for these clients. While working in the public health arena, I encountered many of these clients who could not access care. I was struck by their fear of and lack of ability to cooperate in the dental office setting. Often they are unable to ask for what they need, and so fail to receive appropriate care.

Secondly, I recognized both a professional need and an untapped business opportunity. As a mobile dental hygienist, I knew that I would be able to take the extra time to treat these clients without incurring high overhead costs. I also believe that the service is improved because I am able to provide care in client's homes.

There are other personal benefits of independent practice.

My self esteem is boosted every time my clients (or their caregivers) choose me. I get lots of direct positive feedback. I have freedom and security.

I am my own boss and I choose my hours of work. I use a variety of skills to run my business, including writing, computer record-keeping, bookkeeping, public speaking, teaching, and of course clinical practice.

The hands-on part fills the gap that I felt was missing in my public health position.

“Often, they are unable to ask for what they need, and so fail to receive appropriate care”

In their 1996 book on Canadian demographics, *Boom, Bust and Echo*, authors David Foot and Daniel Stoffman predict that busy people will demand service which conserves their time. They claim that “even doctors will make house calls.” Perhaps this is just the beginning of a trend in the dental profession. For more information on Mara Sand's Mobile Dental Hygiene Service call (250) 354-1188.



Mara provides mobile Dental Hygiene care for elderly patients in the Kootenay area.

RECOMMENDATIONS BY THE AMERICAN HEART ASSOCIATION

Prevention of Bacterial Endocarditis

By Adnan S. Dajani, MD; Kathryn A. Taubert, PhD; Walter Wilson, MD; Ann F. Bolger, MD; Arnold Bayer, MD; Patricia Ferrieri, MD; Michael H. Gewitz, MD; Stanford T. Shulman, MD; Soraya Nouri, MD; Jane W. Newburger, MD; Cecilia Hutto, MD; Thomas J. Pallasch, DDS, MS; Tommy W. Gage, DDS, PhD; Matthew E. Levison, MD; Georges Peter, MD; and Gregory Zuccaro, MD.

Originally published in JAMA, 1997; 277: 1794–1801.

131

Endocarditis is a life-threatening disease, although it is relatively uncommon. Substantial morbidity and mortality result from this infection, despite improvements in outcome due to advances in antimicrobial therapy and enhanced ability to diagnose and treat complications. Primary prevention of endocarditis whenever possible is therefore very important.

Endocarditis usually develops in individuals with underlying structural cardiac defects who develop bacteremia with organisms likely to cause endocarditis. Bacteremia may occur spontaneously or may complicate a focal infection (eg, urinary tract infection, pneumonia, or cellulitis). Some surgical and dental procedures and instrumentations involving mucosal surfaces or contaminated tissue cause transient bacteremia that rarely persists for more than 15 minutes. Blood-borne bacteria may lodge on damaged or abnormal heart valves or on the endocardium or the endothelium near anatomic defects, resulting in bacterial endocarditis or endarteritis. Although bacteremia is common following many invasive procedures, only certain bacteria commonly cause endocarditis. It is not always possible to predict which patients will develop this infection or which particular procedure will be responsible.

There are currently no randomized and carefully controlled human trials in patients with underlying structural heart disease to definitively establish that antibiotic prophylaxis provides protection against development of endocarditis during bacteremia-inducing procedures. Further, most cases of endocarditis are not attributable to an invasive procedure. The following recommendations reflect analyses of relevant literature regarding procedure-related endocarditis, including in vitro susceptibility data of pathogens causing endocarditis, results of prophylactic studies in experimental animal models of endocarditis, and retrospective analyses of human endocarditis cases in terms of antibiotic prophylaxis usage patterns and apparent prophylaxis failures.

The incidence of endocarditis following most procedures in patients with underlying cardiac disease is low. A reasonable approach for endocarditis prophylaxis should consider the following: the degree to which the patient's underlying condition creates a risk of endocarditis; the apparent risk of bacteremia with the procedure (as defined in these recommendations); the potential adverse reactions of the prophylactic antimicrobial agent to be used; and the cost-benefit

aspects of the recommended prophylactic regimen. Failure to consider all of these factors may lead to overuse of antimicrobial agents, excessive cost, and risk of adverse drug reactions.

This statement provides guidelines for prevention of bacterial endocarditis. It is not intended as the standard of care or as a substitute for clinical judgment. The current recommendations are an update of those made by the committee in 1990¹ and incorporate new data and include opinions voiced by national and international experts at endocarditis meetings around the world.

Cardiac Conditions

Certain cardiac conditions are associated with endocarditis more often than others.² Furthermore, when endocarditis develops in individuals with underlying cardiac conditions, the severity of the disease and the ensuing morbidity can be variable. Prophylaxis is recommended in individuals who have a higher risk for developing endocarditis than the general population and is particularly important for individuals in whom endocardial infection is associated with high morbidity and mortality.

Footnotes

OBJECTIVE

To update recommendations issued by the American Heart Association, last published in 1990, for the prevention of bacterial endocarditis in individuals at risk for this disease.

PARTICIPANTS

An ad hoc writing group appointed by the American Heart Association for their expertise in endocarditis and treatment, with liaison members representing the American Dental Association, the Infectious Diseases Society of America, the American Academy of Pediatrics, and the American Society for Gastrointestinal Endoscopy.

EVIDENCE

The recommendations in this article reflect analyses of relevant literature regarding procedure-related endocarditis, *in vitro* susceptibility data of pathogens causing endocarditis, results of prophylactic studies in animal models of endocarditis, and retrospective analyses of human endocarditis cases in terms of antibiotic prophylaxis usage patterns and apparent prophylaxis failures. MEDLINE database searches from 1936 through 1996 were done using the root words endocarditis, bacteremia, and antibiotic prophylaxis. Recommendations in this document fall into evidence level III of the US Preventive Services Task Force categories of evidence.

CONSENSUS PROCESS

The recommendations were formulated by the writing group after specific therapeutic regimens were discussed. The consensus statement was subsequently reviewed by outside experts not affiliated with the writing group and by the Science Advisory and Coordinating Committee of the American Heart Association. These guidelines are meant to aid practitioners but are not intended as the standard of care or as a substitute for clinical judgment.

CONCLUSIONS

Major changes in the updated recommendations include the following: (1) emphasis that most cases of endocarditis are not attributable to an invasive procedure; (2) cardiac conditions are stratified into high-, moderate-, and negligible-risk categories based on potential outcome if endocarditis develops; (3) procedures that may cause bacteremia and for which prophylaxis is recommended are more clearly specified; (4) an algorithm was developed to more clearly define when prophylaxis is recommended for patients with mitral valve prolapse; (5) for oral or dental procedures the initial amoxicillin dose is reduced to 2 g, a follow-up antibiotic dose is no longer recommended, erythromycin is no longer recommended for penicillin-allergic individuals, but clindamycin and other alternatives are offered; and (6) for gastrointestinal or genitourinary procedures, the prophylactic regimens have been simplified. These changes were instituted to more clearly define when prophylaxis is or is not recommended, improve practitioner and patient compliance, reduce cost and potential gastrointestinal adverse effects, and approach more uniform worldwide recommendations.

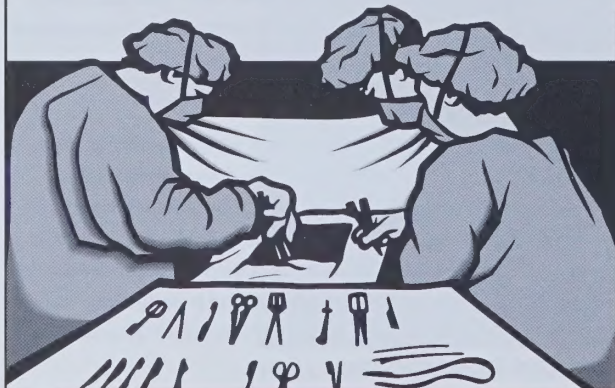


Table 1²⁻²² stratifies cardiac conditions into high- and moderate-risk categories primarily on the basis of potential outcome if endocarditis occurs.

HIGH RISK

Individuals at highest risk are those who have prosthetic heart valves, a previous history of endocarditis (even in the absence of other heart disease), complex cyanotic congenital heart disease, or surgically constructed systemic pulmonary shunts or conduits.^{2,3} These individuals are at a much higher risk for developing severe endocardial infection that is often associated with high morbidity and mortality.

MODERATE RISK

Individuals with certain other underlying cardiac defects are at moderate risk for severe infection.²⁻⁴ Congenital cardiac conditions listed in the moderate-risk category include the following uncorrected conditions: patent ductus arteriosus, ventricular septal defect, primum atrial septal defect, coarctation of the aorta, and bicuspid aortic valve. Acquired valvar dysfunction (eg, due to rheumatic heart disease or collagen vascular disease) and hypertrophic cardiomyopathy are also moderate-risk conditions.

Mitral valve prolapse (MVP) is common, and the need for prophylaxis for this condition is controversial. Only a small percentage of patients with documented MVP develop complications at any age.⁵⁻⁷ Mitral valve prolapse represents a spectrum of valvular changes and clinical behavior.⁵⁻⁷ In view of the controversy surrounding the need for prophylaxis of the individual patient with MVP, a detailed description of the spectrum of MVP is warranted.

Normal mitral valve leaflets close at or below the plane of the mitral annulus. This closure position is controlled by the lengths of the leaflets, their attached chordae and papillary muscles, and the systolic size of the ventricle. The closure position will shift beyond the annular plane toward the left atrium, or prolapse, if the lengths of the valve apparatus, which are constant, become too large for the size of the end-systolic ventricle, which is variable and dynamic. Dehydration and tachycardia are common causes of intermittent MVP. Abnormal motion of normal mitral valves is found on echocardiographic examination in a small percentage of the adult and adolescent ambulatory population. The high prevalence of such motion abnormalities in young adults underscores that MVP is often an abnormality of volume status, adrenergic state, or growth phase and not of valve structure or function. When normal valves prolapse without leaking, as in patients with one or more systolic clicks but no murmurs and no Doppler-demonstrated mitral regurgitation, the risk of endocarditis is not increased above that of the normal population.^{2,6,7} Antibiotic prophylaxis against bacterial endocarditis is therefore not necessary. This is because it is not the abnormal valve motion but the jet of mitral insufficiency that creates the shear forces and flow abnormalities that increase the likelihood of bacterial adherence on the valve during bacteremia.

Normal mitral valves with normal motion often have minimal leaks detectable by Doppler examination. This does not appear to increase the risk of endocarditis. In contrast, the regurgitation that occurs with structurally normal but prolapsing valves originates from larger regurgitant orifices and creates broader areas of turbulent flow. Patients with prolapsing and leaking mitral valves, evidenced by audible clicks and murmurs of mitral regurgitation or by Doppler-

demonstrated mitral insufficiency, should receive prophylactic antibiotics.^{7–11} This is supported by formal cost-benefit analysis.¹²

Mitral valve prolapse also occurs in the setting of myxomatous degeneration of the mitral valve. This is a progressive disorder that has a spectrum of manifestations.^{13, 14} The mitral leaflets of these patients appear thickened on the echocardiogram, due to accumulations of proteoglycan deposits.¹⁵ The amount of thickening is variable and may increase with age.¹⁶ There is a range of valve motion in these patients as well: they may prolapse continuously or only with changes in heart rate or volume. Further, when prolapse occurs, it may or may not create valvular insufficiency. In patients of any age, myxomatous mitral valve degeneration with regurgitation is an indication for antibiotic prophylaxis.^{11, 17, 18}

Anterior mitral valve thickening is commonly found in both competent and insufficient myxomatous mitral valves, but its presence increases the likelihood of significant mitral regurgitation.¹⁶ Those with significant regurgitation were older and more likely to be men.¹⁶ Other studies have shown that male sex and age older than 45 years represent increased risk for developing endocarditis.^{8, 10, 11, 19} Patients with thickened valves that do not leak on resting examination often develop regurgitation with exercise. These patients with exercise-induced mitral insufficiency have been shown to constitute a higher-risk subset for common complications (syncope, congestive heart failure, progressive regurgitation requiring valve replacement); endocarditis and cerebral embolic events, occurring far less frequently, were not demonstrated to be increased in this small series.²⁰ Men older than 45 years with MVP, without a consistent systolic murmur, may warrant prophylaxis even in the absence of resting regurgitation.^{12, 19}

Some experts feel that an audible nonejection click even without a murmur may identify patients with a potential for intermittent regurgitation and therefore a risk of developing endocarditis. While there are insufficient data on this issue, an isolated click may be an indication for more thorough evaluation of valve morphology and function, including Doppler-echocardiographic imaging or auscultation during maneuvers that elicit or augment mitral regurgitation.

While children and adolescents with MVP may have the same symptoms as adults, such as palpitations or syncope, the development of symptoms in childhood is relatively unusual. The vast majority of children with chest pain or fatigue do not have any form of heart disease, including MVP. Careful evaluation is nevertheless required in children who have isolated clinical findings, such as nonejection systolic click, since this may be the only indicator of important mitral valve abnormality requiring prophylaxis.²¹ In the most recent series of reports, MVP has emerged as an important underlying diagnosis associated with endocarditis in the pediatric age group.^{3, 21}

A clinical approach to determination of the need for prophylaxis in individuals with suspected MVP is given in the Figure.²³

NEGLIGIBLE RISK

Although endocarditis may develop in any individual, including persons with no underlying cardiac defect, the negligible-risk category lists cardiac conditions in which the development of endocarditis is not higher than in the general population. Whereas in pediatric patients innocent heart murmurs may be clearly defined on auscultation, in

the adult population other studies such as echocardiography may be necessary to confirm that a murmur is innocent. Individuals with innocent heart murmurs have structurally normal hearts and do not require prophylaxis.

Bacteremia-Producing Procedures

Bacteremias commonly occur during activities of daily living such as routine tooth brushing or chewing. With respect to endocarditis prophylaxis, significant bacteremias are only those caused by organisms commonly associated with endocarditis and attributable to identifiable procedures. The procedures for which prophylaxis is recommended are those known to induce such bacteremias and are discussed below. Invasive procedures performed through surgically scrubbed skin are not likely to produce such bacteremias. Many centers do employ periprocedure prophylaxis for transcatheter insertion of prosthetic devices (septal occluders and vascular coils), however, although there are no data to support the use of antibiotics in the procedures. Routine cardiac catheterization and angioplasty do not require such precautions.

DENTAL AND ORAL PROCEDURES

Poor dental hygiene and periodontal or periapical infections may produce bacteremia even in the absence of dental procedures. The incidence and magnitude of bacteremias of oral origin are directly proportional to the degree of oral inflammation and infection.^{24, 25} Individuals who are at risk for developing bacterial endocarditis should establish and maintain the best possible oral health to reduce potential sources of bacterial seeding. Optimal oral health is maintained through regular professional care^{24, 26, 27} and the use of appropriate dental products such as manual and powered toothbrushes, dental floss, and other plaque-removal devices. Oral irrigator or air abrasive polishing devices used inappropriately or in patients with poor oral hygiene have been implicated in producing bacteremia, but the relationship to bacterial endocarditis is unknown.^{24, 28–31} Home-use devices pose far less risk of bacteremia in a healthy mouth than does ongoing oral inflammation.^{24, 28–31}

Antiseptic mouth rinses applied immediately prior to dental procedures may reduce the incidence or magnitude of bacteremia.²⁴ Agents include chlorhexidine hydrochloride and povidone-iodine. Fifteen milliliters of chlorhexidine can be given to all at-risk patients via gentle oral rinsing for about 30 seconds prior to dental treatment; gingival irrigation is not recommended. Sustained or repeated frequent interval use is not indicated as this may result in the selection of resistant micro-organisms.²⁴

Antibiotic prophylaxis for at-risk patients is recommended for dental and oral procedures likely to cause bacteremia (*Table 2* 22, 24–26, 28–31). In general, prophylaxis is recommended for procedures associated with significant bleeding from hard or soft tissues, periodontal surgery, scaling, and professional teeth cleaning. Similarly, antimicrobial prophylaxis is recommended for tonsillectomy or adenoidectomy. It is recognized that unanticipated bleeding may occur on some occasions. In such an event, data from experimental animal models suggest that antimicrobial prophylaxis administered within 2 hours following the procedure will provide effective prophylaxis.³² Antibiotics administered more than 4 hours after the procedure probably have no prophylactic benefit. Procedures for which antimicrobial prophylaxis is not recommended are also listed (*Table 2*).

Edentulous patients may develop bacteremia from ulcers caused by ill-fitting dentures. Denture wearers should be encouraged to have periodic examinations or to return to the practitioner if discomfort develops. When new dentures are inserted, it is advisable to have the patient return to the practitioner to correct any problems that could cause mucosal ulceration.

If a series of dental procedures is required, it may be prudent to observe an interval of time between procedures to both reduce the potential for the emergence of resistant organisms and allow repopulation of the mouth with antibiotic susceptible flora. Various studies have suggested an interval of 933 to 1434 days. If possible, a combination of procedures should be planned within the same period of prophylaxis.

PROPHYLACTIC REGIMENS

Prophylaxis is most effective when given perioperatively in doses that are sufficient to assure adequate antibiotic concentrations in the serum during and after the procedure. To reduce the likelihood of microbial resistance, it is important that prophylactic antibiotics be used only during the perioperative period. They should be initiated shortly before a procedure and should not be continued for an extended period (no more than 6 to 8 hours). In the case of delayed healing, or of a procedure that involves infected tissue, it may be necessary to provide additional doses of antibiotics for treatment of the established infection.

Practitioners must exercise their own clinical judgment in determining the choice of antibiotics and number of doses that are to be administered in individual cases or special circumstances. Furthermore, because endocarditis may occur in spite of appropriate antibiotic prophylaxis, health professionals should maintain a high index of suspicion regarding any unusual clinical events (such as unexplained fever, night chills, weakness, myalgia, arthralgia, lethargy, or malaise) following dental or other surgical procedures in patients who are at risk for developing bacterial endocarditis.

REGIMENS FOR DENTAL, ORAL, RESPIRATORY TRACT, OR ESOPHAGEAL PROCEDURES

Streptococcus viridans (-hemolytic streptococci) is the most common cause of endocarditis following dental or oral procedures, certain upper respiratory tract procedures, bronchoscopy with a rigid bronchoscope, surgical procedures that involve the respiratory mucosa, and esophageal procedures. Prophylaxis should be specifically directed against these organisms. The same regimens are recommended for all these procedures (Table 4^{1, 22, 59-61}). The recommended standard prophylactic regimen for all these procedures is a single dose of oral amoxicillin. The antibiotics amoxicillin, ampicillin, and penicillin V are equally effective in vitro against -hemolytic streptococci; however, amoxicillin is recommended because it is better absorbed from the gastrointestinal tract and provides higher and more sustained serum levels. Previously the recommended dose was 3.0 g 1 hour before a procedure and then 1.5 g 6 hours after the initial dose.¹ Recent comparisons of 2.0-g and 3.0-g dosing indicate that a 2.0-g dose results in adequate serum levels for several hours and causes less gastrointestinal adverse effects.⁵⁹ The newly recommended adult dose is 2.0 g of amoxicillin (pediatric dose is 50 mg/kg not to exceed the adult dose) to be administered 1 hour before the anticipated procedure. A second dose is not necessary, both because of the prolonged serum levels above the minimal inhibitory

concentration of most oral streptococci⁵⁹ and the prolonged serum inhibitory activity induced by amoxicillin against such strains (6 to 14 hours).⁶⁰ For individuals who are unable to take or unable to absorb oral medications, a parenteral agent may be necessary. Ampicillin sodium is recommended because parenteral amoxicillin is not available in the United States. Individuals who are allergic to penicillins (such as amoxicillin, ampicillin, or penicillin) should be treated with the provided alternative oral regimens. Clindamycin hydrochloride is one recommended alternative. Individuals who can tolerate first-generation cephalosporins (cephalexin or cefadroxil) may receive these agents, provided they have not had an immediate, local, or systemic IgE-mediated anaphylactic allergic reaction to penicillin. Azithromycin or clarithromycin are also acceptable alternative agents for the penicillin-allergic individual,⁶¹ although they are more expensive than the other regimens. When parenteral administration is needed in an individual who is allergic to penicillin, clindamycin phosphate is recommended; cefazolin may be used if the individual does not have an immediate type local or systemic anaphylactic hypersensitivity to penicillin. The previous recommendations from this committee listed erythromycin as an alternate agent for the penicillin-allergic patient. Erythromycin is no longer included because of gastrointestinal upset and complicated pharmacokinetics of the various formulations.⁶² Practitioners who have successfully used erythromycin for prophylaxis in individual patients may choose to continue with this antibiotic. The regimen is included in our previous recommendations.¹

Specific Situations and Circumstances

PATIENTS ALREADY RECEIVING ANTIBIOTICS

Occasionally, a patient may be taking an antibiotic when coming to the health professionals. If the patient is taking an antibiotic normally used for endocarditis prophylaxis, it is prudent to select a drug from a different class rather than to increase the dose of the current antibiotic. In particular, antibiotic regimens used to prevent the recurrence of acute rheumatic fever are inadequate for the prevention of bacterial endocarditis. Individuals who take an oral penicillin for secondary prevention of rheumatic fever or for other purposes may have viridans streptococci in their oral cavities that are relatively resistant to penicillin, amoxicillin, or ampicillin. In such cases, the physician or dentist should select clindamycin, azithromycin, or clarithromycin (Table 4) for endocarditis prophylaxis. Because of possible cross-resistance with the cephalosporins, this class of antibiotics should be avoided. If possible, one could delay the procedure until at least 933 to 1434 days after completion of the antibiotic. This will allow the usual oral flora to be reestablished.

PROCEDURES INVOLVING INFECTED TISSUES

Incision and drainage or other procedures involving infected tissues may result in bacteremia with the same organism causing the infection. In individuals at risk for endocarditis (the high- and moderate-risk categories in Table 1), it is advisable to administer antimicrobial prophylaxis before the procedure. Prophylaxis should be directed at the most likely pathogen causing the infection. For nonoral soft tissue infections (cellulitis), or bone and joint infections (osteomyelitis and pyogenic arthritis), an antistaphylococcal penicillin or first-generation cephalosporin is an appropriate choice. For patients who are allergic to penicillins, clindamycin is an acceptable alternative. For those unable to take oral antibiotics or who are known to have methicillin sodium-resistant *Staphylococcus aureus* bacteremia,

vancomycin is the regimen of choice. For UTI, agents active against enteric gram-negative bacilli (such as aminoglycosides or third-generation cephalosporins) are advisable.

PATIENTS WHO RECEIVE ANTICOAGULANTS

Intramuscular injections for endocarditis prophylaxis should be avoided in patients who receive heparin. The use of warfarin sodium is a relative contraindication to intramuscular injections. Intravenous or oral regimens should be used whenever possible.

PATIENTS WHO UNDERGO CARDIAC SURGERY

A careful preoperative dental evaluation is recommended so that required dental treatment can be completed before cardiac surgery whenever possible. Such measures may decrease the incidence of late postoperative endocarditis.

Patients who have cardiac conditions that predispose them to endocarditis are at risk for developing bacterial endocarditis when undergoing open heart surgery. Similarly, patients who undergo surgery for placement of prosthetic heart valves or prosthetic intravascular or intracardiac materials are also at risk for the development of bacterial endocarditis. Because the morbidity and mortality of endocarditis in such patients are high, perioperative prophylactic antibiotics are recommended. Endocarditis associated with open heart surgery is most often caused by *S aureus*, coagulase-negative staphylococci, or diphtheroids. Streptococci, gram-negative bacteria, and fungi are less common. No single antibiotic regimen is effective against all these organisms. Furthermore, prolonged use of broad-spectrum antibiotics may predispose to superinfection with unusual or resistant micro-organisms. Prophylaxis at the time of cardiac surgery should be directed primarily against staphylococci and should be of short duration. First-generation cephalosporins are most often used, but the choice of an antibiotic should be influenced by the antibiotic susceptibility patterns at each hospital. For example, high prevalence of infection by methicillin-resistant *S aureus* in a particular inpatient unit should prompt consideration of vancomycin for perioperative prophylaxis. It should be noted, however, that although the majority of nosocomial coagulase-negative staphylococci exhibit the methicillin-resistance phenotype *in vitro*, endocarditis prophylaxis with first-generation cephalosporins is effective for most patients undergoing cardiac valve surgery.⁶³ Prophylaxis with the chosen antibiotic should be started immediately before the operative procedure, repeated during prolonged procedures to maintain levels intraoperatively, and continued for no more than 24 hours postoperatively to minimize emergence of resistant micro-organisms. The effects of cardiopulmonary bypass and compromised postoperative renal function on antibiotic levels in the serum should be considered and doses timed appropriately before and during the procedure.

STATUS FOLLOWING CARDIOVASCULAR PROCEDURES

Many reparative cardiac procedures do not modify the patient's long-term risk for infective endocarditis, which continues indefinitely (Table 1). In the case of prosthetic valve replacement, the risk of endocarditis increases postoperatively. In other conditions, such as closure of ventricular septal defect or patent ductus arteriosus without residual leak, the risk of endocarditis diminishes to the level of the general population after a 6-month healing period. Data are insufficient to make recommendations for prophylactic therapy

after closure of these lesions by transcatheter devices. There is no evidence that coronary artery bypass graft surgery introduces a risk for endocarditis. Therefore, antibiotic prophylaxis is not needed for individuals who have previously undergone this procedure. Noncoronary vascular grafts may merit antibiotic prophylaxis for the first 6 months after implantation.

There are insufficient data to support recommendations for patients who have had heart transplants. However, such patients are at risk of acquired valvular dysfunction, especially during episodes of rejection. Because of this, and the continuous use of immunosuppression in such patients, most transplant physicians administer prophylaxis according to regimens for the moderate-risk category.

OTHER CONSIDERATIONS

A case of endocarditis, perceived as result of failure to administer a recommended prophylactic regimen, requires careful analysis. It is important to consider the following factors: (1) the time period between the putatively responsible invasive procedure and the onset of clinical symptoms compatible with endocarditis; (2) the etiologic organism causing endocarditis; (3) the likelihood that the putative invasive procedure resulted in bacteremia; and (4) knowledge by the patient of the presence or severity of the underlying lesion and communication of this information to the treating physician or dentist prior to the procedure. Most cases of procedure-related endocarditis occur with a short incubation period of approximately 2 weeks or less following the procedure.⁶⁴ A longer incubation period between the invasive procedure and the onset of symptoms significantly lessens the likelihood that the procedure was the proximate cause of the endocarditis. A national registry established by the American Heart Association in the early 1980s analyzed 52 cases of apparent failures of endocarditis prophylaxis.⁶⁵ Only 6 (12%) of the 52 cases had received prophylactic regimens that were currently recommended by the American Heart Association. The vast majority of endocarditis due to oral organisms is not related to dental treatment procedures.^{24, 27} One recent large-scale, population-based, case-control study, done in 54 Philadelphia area hospitals from 1988 to 1990, was unable to demonstrate any independent risk for endocarditis attributable to prior dental treatment.⁶⁶ In addition, it is unlikely that cases of viridans streptococcal endocarditis would complicate invasive nonesophageal gastrointestinal or genitourinary procedures. Similarly, enterococcal endocarditis would be a very unusual consequence of dental procedures.

The use of prophylactic antibiotics to prevent infection of joint prostheses during potentially bacteremia-inducing procedures is not within the scope of issues addressed by this committee.

Acknowledgment

The authors thank Jeanette Allison for her superb secretarial skills.

References

1. Dajani AS, Bisno AL, Chung KJ, et al. "Prevention of bacterial endocarditis." *JAMA*. 1990; 264: 2919-2922.
2. Steckelberg JM, Wilson WR. "Risk factors for infective endocarditis." *Infect Dis Clin North Am*. 1993; 7: 9-19.
3. Saiman L, Prince A, Gersony WM. "Pediatric infective endocarditis in the modern era." *J Pediatr*. 1993; 122: 847-853.
4. Gersony WM, Hayes CJ, Driscoll DJ, et al. "Bacterial endocarditis in patients with aortic stenosis, pulmonary stenosis, or ventricular septal defect." *Circulation*. 1993; 87(suppl I): I-121-I-126.
5. Prabhu SD, O'Rourke RA. "Mitral valve prolapse." In: Braunwald E, series ed, Rahimtoola SH, volume ed. *Atlas of Heart Diseases: Valvular Heart Disease*: Vol XI. St Louis, Mo: Mosby-Year Book Inc; 1997: 10.1-0.18.

6. Boudoulas H, Wooley CF. "Mitral valve prolapse." In: Emmanouilides GC, Riemenschneider TA, Allen HD, Gutgesell HP, eds. *Moss and Adams Heart Disease in Infants, Children, and Adolescents Including the Fetus and Young Adult*. 5th ed. Baltimore, Md: Williams & Wilkins; 1995: 1063–1086.
7. Carabello BA. "Mitral valve disease." *Curr Probl Cardiol*. 1993; 7: 423–478.
8. Devereux RB, Hawkins I, Kramer-Fox R, et al. "Complications of mitral valve prolapse: disproportionate occurrence in men and older patients." *Am J Med*. 1986; 81: 751–758.
9. Danchin N, Briancon S, Mathieu P, et al. "Mitral valve prolapse as a risk factor for infective endocarditis." *Lancet*. 1989; 1: 743–745.
10. MacMahon SW, Roberts JK, Kramer-Fox R, et al. "Mitral valve prolapse and infective endocarditis." *Am Heart J*. 1987; 113: 1291–1298.
11. Marks AR, Choong CY, Sanfilippo AJ, Ferre M, Weyman AE. "Identification of high-risk and low-risk subgroups of patients with mitral-valve prolapse." *N Engl J Med*. 1989; 320: 1031–1036.
12. Devereux RB, Frary CJ, Kramer-Fox R, Roberts RB, Ruchlin HS. "Cost-effectiveness of infective endocarditis prophylaxis for mitral valve prolapse with or without a mitral regurgitant murmur." *Am J Cardiol*. 1994; 74: 1024–1029.
13. Zuppiroli A, Rinaldi M, Kramer-Fox R, Favilli S, Roman MJ, Devereux RB. "Natural history of mitral valve prolapse." *Am J Cardiol*. 1995; 75: 1028–1032.
14. Wooley CF, Baker PB, Kolibash AJ, et al. "The floppy, myxomatous mitral valve, mitral valve prolapse, and mitral regurgitation." *Prog Cardiovasc Dis*. 1991; 33: 397–433.
15. Morales AR, Romanelli R, Boucek RJ, Tate LG, Alvarez RT, Davis JT. "Myxoid heart disease: an assessment of extravalvular cardiac pathology in severe mitral valve prolapse." *Hum Pathol*. 1992; 23: 129–137.
16. Weissman NJ, Pini R, Roman MJ, Kramer-Fox R, Andersen HS, Devereux RB. "In vivo mitral valve morphology and motion in mitral valve prolapse." *Am J Cardiol*. 1994; 73: 1080–1088.
17. Nishimura RA, McGoon MD, Shub C, et al. "Echocardiographically documented mitral-valve prolapse." *N Engl J Med*. 1985; 313: 1305–1309.
18. McKinsey DS, Ratts TE, Bisno AL. "Underlying cardiac lesions in adults with infective endocarditis." *Am J Med*. 1987; 82: 681–688.
19. Devereux RB, Kramer-Fox R, Kligfield P. "Mitral valve prolapse: causes, clinical manifestations, and management." *Ann Intern Med*. 1989; 111: 305–317.
20. Stoddard MF, Prince CR, Dillon S, Longaker RA, Morris GT, Liddell NE. "Exercise-induced mitral regurgitation is a predictor of morbid events in subjects with mitral valve prolapse." *J Am Coll Cardiol*. 1995; 25: 693–699.
21. Awadallah SM, Kavey REW, Byrum CJ, Smith FC, Kveselis DA, Blackman MS. "The changing pattern of infective endocarditis in childhood." *Am J Cardiol*. 1991; 68: 90–94.
22. Durack DT. "Prevention of infective endocarditis." *N Engl J Med*. 1995; 332: 38–44.
23. Cheitlin MD, Alpert JS, Armstrong WF, et al. "ACC/AHA guidelines for the clinical application of echocardiography: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on Clinical Application of Echocardiography)." *Circulation*. 1997; 95: 1686–1744.
24. Pallasch TJ, Slots J. "Antibiotic prophylaxis and the medically compromised patient." *Periodontol*. 1996; 10: 107–138.
25. Bender IB, Naidorf IJ, Garvey GJ. "Bacterial endocarditis: a consideration for physicians and dentists." *J Am Dent Assoc*. 1984; 109: 415–420.
26. Guntheroth WG. "How important are dental procedures as a cause of infective endocarditis?" *Am J Cardiol*. 1984; 54: 797–801.
27. Kaye D. "Prophylaxis for infective endocarditis: an update." *Ann Intern Med*. 1986; 104: 419–423.
28. Roman AR, App GR. "Bacteremia, a result from oral irrigation in subjects with gingivitis." *J Periodontol*. 1971; 42: 757–760.
29. Felix JE, Rosen S, App GR. "Detection of bacteremia after the use of oral irrigation device on subjects with periodontitis." *J Periodontol*. 1971; 42: 785–787.
30. Hunter KD, Holbrow DW, Kardos TB, Lee-Knight CT, Ferguson MM. "Bacteremia and tissue damage resulting from air polishing." *Br Dent J*. 1989; 167: 275–277.
31. Berger SA, Weitzman S, Edberg SC, Corell JI. "Bacteremia after use of an oral irrigating device." *Ann Intern Med*. 1974; 80: 510–511.
32. Berney P, Francioli P. "Successful prophylaxis of experimental streptococcal endocarditis with single-dose amoxicillin administered after bacterial challenge." *J Infect Dis*. 1990; 161: 281–285.
33. Leviner E, Tzuket AA, Benoliel R, Baram O, Sela MV. "Development of resistant oral viridans streptococci after administration of prophylactic antibiotics: time management in the dental treatment of patients susceptible to infective endocarditis." *Oral Surg Oral Med Oral Pathol*. 1987; 64: 417–420.
34. Simmons NA, Cawson RA, Clark CA, et al. "Prophylaxis of infective endocarditis." *Lancet*. 1986; 1: 1267.
35. Dajani AS, Bawdon RE, Berry MC. "Oral amoxicillin as prophylaxis for endocarditis: what is the optimal dose?" *Clin Infect Dis*. 1994; 18: 157–160.
36. Fluckiger U, Francioli P, Blaser J, Glauser MP, Moreillon P. "Role of amoxicillin serum levels for successful prophylaxis of experimental endocarditis due to tolerant streptococci." *J Infect Dis*. 1994; 169: 397–400.
37. Rouse MS, Steckelberg JM, Brandt CM, Patel R, Miro JM, Wilson WR. "Efficacy of azithromycin or clarithromycin for the prophylaxis of viridans streptococcal experimental endocarditis." *Antimicrob Agents Chemother*. In press.
38. Sande MA, Mandell GL. "Antimicrobial agents — tetracyclines, chloramphenicol, erythromycin, and miscellaneous antibacterial agents." In: Gilman AG, Rall TW, Nies AS, Taylor P, eds. *Goodman and Gilman's The Pharmacological Basis of Therapeutics*. 8th ed. New York, NY: Pergamon Press Inc; 1990: 1117–1145.
39. Bayer AS, Nelson RJ, Slama TG. "Current concepts in prevention of prosthetic valve endocarditis." *Chest*. 1990; 97: 1203–1207.
40. Starkebaum M, Durack D, Beeson P. "The incubation period of subacute bacterial endocarditis." *Yale J Biol Med*. 1977; 50: 49–58.
41. Durack DT, Kaplan EL, Bisno AL. "Apparent failures of endocarditis prophylaxis: analysis of 52 cases submitted to a national registry." *JAMA*. 1983; 250: 2318–2322.
42. Strom BL, Abrutyn E, Berlin JA, et al. "Prophylactic antibiotics to prevent infective endocarditis? Relative risks re-assessed." *J Invest Med*. 1996; 44: 229. Abstract.

"Prevention of Bacterial Endocarditis" was approved by the American Heart Association Science Advisory and Coordinating Committee in October 1996, and published in the June 11, 1997 issue of the *Journal of the American Medical Association*. It is reprinted in *Probe* with the permission of the American Medical Association. The Council on Scientific Affairs of the American Dental Association has approved the statement as it relates to dentistry. The American Society for Gastrointestinal Endoscopy has approved the statement as it relates to gastroenterology.

Table 1
CARDIAC CONDITIONS
ASSOCIATED WITH ENDOCARDITIS²⁻²²

ENDOCARDITIS PROPHYLAXIS RECOMMENDED	
High-risk category	
• Prosthetic cardiac valves, including bioprosthetic and homograft valves • Previous bacterial endocarditis • Complex cyanotic congenital heart disease (eg, single ventricle states, transposition of the great arteries, tetralogy of Fallot) • Surgically constructed systemic pulmonary shunts or conduits	
Moderate-risk category	
• Most other congenital cardiac malformations (other than above and below) Acquired valvar dysfunction (eg, rheumatic heart disease) • Hypertrophic cardiomyopathy • Mitral valve prolapse with valvar regurgitation and/or thickened leaflets¹	
ENDOCARDITIS PROPHYLAXIS NOT RECOMMENDED	
Negligible-risk category (no greater risk than the general population)	
• Isolated secundum atrial septal defect • Surgical repair of atrial septal defect, ventricular septal defect, or patent ductus arteriosus (without residua beyond 6 mo) • Previous coronary artery bypass graft surgery • Mitral valve prolapse without valvar regurgitation¹ • Physiologic, functional, or innocent heart murmurs¹ • Previous Kawasaki disease without valvar dysfunction • Previous rheumatic fever without valvar dysfunction • Cardiac pacemakers (intravascular and epicardial) and implanted defibrillators	

¹See text for further details.

Table 2DENTAL PROCEDURES AND ENDOCARDITIS PROPHYLAXIS^{22,24-26,28-31}

ENDOCARDITIS PROPHYLAXIS RECOMMENDED*	ENDOCARDITIS PROPHYLAXIS NOT RECOMMENDED
• Dental extractions • Periodontal procedures including surgery, scaling and root planing, probing, and recall maintenance • Dental implant placement and reimplantation of avulsed teeth • Endodontic (root canal) instrumentation or surgery only beyond the apex • Subgingival placement of antibiotic fibers or strips • Initial placement of orthodontic bands but not brackets • Intraligamentary local anesthetic injections • Prophylactic cleaning of teeth or implants where bleeding is anticipated	• Restorative dentistry† (operative and prosthodontic) with or without retraction cord‡ • Local anesthetic injections (nonintraaligamentary) • Intracanal endodontic treatment; post placement and buildup • Placement of rubber dams • Postoperative suture removal • Placement of removable prosthodontic or orthodontic appliances • Taking of oral impressions • Fluoride treatments • Taking of oral radiographs • Orthodontic appliance adjustment • Shedding of primary teeth

*Prophylaxis is recommended for patients with high- and moderate-risk cardiac conditions.

†This includes restoration of decayed teeth (filling cavities) and replacement of missing teeth.

‡Clinical judgment may indicate antibiotic use in selected circumstances that may create significant bleeding.

137

Table 4PROPHYLACTIC REGIMENS FOR DENTAL, ORAL, RESPIRATORY TRACT, OR ESOPHAGEAL PROCEDURES^{1,22,59-61}

SITUATION	AGENT	REGIMEN
Standard general prophylaxis	Amoxicillin	Adults: 2.0 g; Children: 50 mg/kg orally 1 h before procedure
Unable to take oral medications	Ampicillin	Adults: 2.0 g IM or IV; Children: 50 mg/kg IM or IV within 30 min before procedure
Allergic to penicillin	Clindamycin or	Adults: 600 mg; Children: 20 mg/kg orally 1 h before procedure
	Cephalexin [†] or	Adults: 2.0 g; Children: 50 mg/kg cefadroxil [†] or orally 1 h before procedure
	Azithromycin or	Adults: 500 mg; Children: clarithromycin 15 mg/kg orally 1 h before procedure
Allergic to penicillin and unable to take oral medications	Clindamycin or	Adults: 600 mg; Children: 20 mg/kg IV within 30 min before procedure
	Cefazolin [†]	Adults: 1.0 g; Children: 25 mg/kg IM or IV within 30 min before procedure

IM indicates intramuscularly, and IV, intravenously.

* Total children's dose should not exceed adult dose.

† Cephalosporins should not be used in individuals with immediate-type hypersensitivity reaction (urticaria, angioedema, or anaphylaxis) to penicillins.

SELF-ASSESSMENT TEST



Prepared by the National Dental Hygiene Certification Board (NDHCB). The NDHCB is the agency responsible for the development, administration, scoring and reporting of results of the National Dental Hygiene Certification Examination. CDHA in partnership with the NDHCB is pleased to provide sample questions likely to appear on the National Dental Hygiene Certification Examination in Probe issues. The sample questions are based on a series of 49 questions and answers displayed in the 1998 Application Guide available from the NDHCB. Questions 6 to 10 appeared in the May/June 1998 vol. 32 no. 3 issue of Probe.

*For more information contact: National Dental Hygiene Certification Board,
P.O. Box 58006, Orléans, Ontario K1C 7H4
Telephone: (613) 837-2727 Fax (613) 837-6971*

138

11. Mr. Lang, 30 years old, arrives for his appointment. He mentions that he had hepatitis B about one year ago. What should the dental hygienist be aware of regarding infection control?

1. Follow the usual protocol for instruments and equipment before the next client is treated.
2. Perform a double disinfection/sterilization before the next client is treated.
3. Follow the usual protocol for instruments and equipment and leave the disinfectant on the equipment for a longer period of time.
4. Perform a double disinfection/sterilization with double-gloves.

12. When reviewing an article related to the efficacy of a desensitizing agent, which one of the following research variables is most important for the dental hygienist to ensure?

1. Sample size larger than 50
2. Random sampling
3. Control group
4. Informed consent

13. Mr. John Peterson, a 35-year-old client with a moderate asthmatic condition, rushes into the office 20 minutes late for his appointment. His vital signs are BP 143/89 mmHg, HR 88 beats/min, RR20 breaths/min and labored. What should the dental hygienist do?

1. Reschedule because he is 20 minutes late.
2. Perform noninvasive assessment procedures and then recheck vital signs.
3. Refer the client to his physician for a consultation before performing any services.
4. Document vital signs and proceed with debridement.

14. A dental health study of the northeast zone of a major Canadian city, representing 40% of the city's population, reveals that this group of citizens has limited access to adequate dental care services. The data show that this population is predominantly multicultural with lower than average socio-economic status. There is a well-established dental school in the southwest side of the city. Which of the following initial oral health promotion activities would best serve the needs of this population?

1. Initiate a mass random mailing, in the appropriate language, to the specific target groups, promoting the dental school's services.
2. Initiate the construction of a comprehensive dental health facility in the zone. Utilize the services of dental hygiene students and dental students to provide cost-effective dental health services.
3. Initiate collaborative dialogue with key ethnic community members and health providers to address the specific attitudes, beliefs, and behaviours of this target population.
4. Initiate collaborative efforts with existing health care providers to share information on this target population.

15. Mr. Mosby's treatment plan included four appointments for periodontal debridement and self-care counseling. On his second visit, Mr. Mosby presents with herpetic stomatitis. What should the dental hygienist do?

1. Implement debridement in the area with the least number of lesions.
2. Have Mr. Mosby rinse with chlorhexidine prior to treatment.
3. Defer treatment for 7 to 10 days.
4. Refer Mr. Mosby to a physician for a smear test.

Answer Key and Rationale ...continued on page 144

Ready, Set, Go!

PART I: ORAL HEALTH NEEDS ASSESSMENT OF LONG-TERM CARE FACILITIES AND NURSING HOMES IN PERTH COUNTY

By Virginia Perry, RDH



Virginia Perry, RDH

It is no secret to anyone that there is a great need for oral health education and services in the geriatric population today, regardless of whether they reside at home, in retirement villas or long-term care facilities (LTCFs). This is the population group that has lived the longest, survived the most hardships and have triumphed over the test of time. As we also know, dental care has been low on their list of priorities.

Many have had complete dentures since they were in their early thirties and scoff at those who are plagued with toothaches. To them, it is a waste of time and precious, precious money to try to save teeth.

Those who have young children and who have watched "The Lion King" many (many!) times will be familiar with the moral of its story that "the circle of life" is what keeps our world in balance. Essentially, we end up just as we began, creatures who are totally dependant on those around us to love, care for, and nurture us. Many of us are angry when we see an infant or child not receiving the basic care required to keep them healthy and thriving. Who is responsible, we ask; the primary care giver (usually family); the health care profession; or, society as a whole? The answer for most of us is that young children are helpless and totally dependant on others to provide their basic needs. We all recognize that the health care profession has an obligation to detect the lack of care being given, and that society as a whole has a responsibility to demand the provision of this care. Yet rarely does it anger us as much to see the same lack of basic care in an elderly person. It should.

There are a variety of reasons why the basic oral health needs of many elderly people have not been met. As countless studies show it's not a simple issue, blame does not reside with particular sectors of our population for example. We can, however, do something about the situation, and dental hygienists have the knowledge and abilities to play a key role in the solution. Unfortunately there are many obstacles. The main objective of the project, submitted and approved for the CDHA/Colgate Community Health Grant, is to provide some insight to our profession (dentists, dental hygienists, preventative dental assistants and assistants) both about these obstacles and how to pull together as a team in order to meet the needs of our geriatric population.

Ready, set, go!

Obstacle #1:

PROFESSIONAL RESISTANCE AND THE INTERPRETATION AND APPLICATION OF ORDERS

Long before I applied for the CDHA/Colgate Community Health Grant, I did some informal research about how to provide basic dental hygiene services in LTCFs. I spoke to two insightful dental hygienists who had been doing just that for some time. The first and foremost obstacle was finding a dentist willing to give the "order" we legally require before we can begin procedures. Even after finding a dentist, I was warned that more challenges would arise. The dentist would probably want to remain anonymous due to the fact that he/she would be scrutinized and ridiculed by their own professional peers. I was also warned that I could expect to be practising dental hygiene in only this venue for the rest of my career, that I would be "black-listed" and not rehired in a dental office unless I moved to a new area where I would be "unknown". Looking back, I'm really not sure why I didn't run as fast as I could from this idea. I am glad I didn't. However, I wonder how many others have.

I am confident that the matter of "orders" will be resolved and that an amendment will be made that satisfies the concerns of the Royal College of Dental Surgeons of Ontario (RCDSO), the College of Dental Hygienists of Ontario (CDHO) and their respective members. Until then we cannot ignore the issue. Several important points regarding an "order" will have to be addressed. Before a dental hygienist can perform any scaling (and note, an order is required *only* for the act of scaling) on an individual, the dentist must examine the patient and review their medical history. A "standing order" may only be given for those individuals with a clear medical history. A *clear medical history* is defined as one in which no medications are being taken and no pre-medications are required to perform scaling. Unfortunately, very few, if any, elderly persons residing in LTCFs will have a clear medical history, so the issue of an order requires the dentist to take a much more active role in the provision of this care.

SOLUTION

There must be a collaboration between the dental hygienist, the dentist and dental staff to provide the service of scaling. Keeping in mind that scaling is only one part of the services needed in this population group, it is of great benefit to have a dentist more actively involved. With a team, a greater variety of services, including denture repairs, extractions, and, with the proper equipment, more substantial work, such as restorations and root canal treatments can be provided.

This does not mean that the dental hygienist cannot be self-employed. Many dental hygienists are now "self-employed" working in a traditional setting. However, they are paid only a percentage of the fee for their service. This obstacle will be addressed later.

As the regulations stand today, an order is required *only* for the act of scaling yet there is a vast amount of knowledge and skill that a dental hygienist possesses that makes them a key player on the team. Because of the nature of the profession, dental hygienists are required to be excellent communicators and educators, and they possess the skills to be valuable assessors of the oral needs of individuals and education needs of the facilities. Dental hygienists can be the assessors and initiators of dental care. While dentists are qualified, their time away from the office is too valuable to be spent on much other than treatment. The assistants can educate but are not able to assess. What a huge window of opportunity for the profession!

Obstacle #2

Although it would be nice to think that we live in a world where most of us will see a need and meet that need just for the sheer enjoyment of helping others — it is not. I don't wear rose-coloured glasses and neither should you. It is not our professional responsibility to provide services to the geriatric population without being compensated financially for those efforts. We are not their primary caregivers nor their family. The obstacle therefore arises because the elderly often have limited financial resources and/or a third party is responsible for paying financial obligations. This third party is usually responsible for deciding what services should be provided to the client — cost may determine that these are not necessarily all the services recommended. Obviously, it is very important to find the most cost-efficient way to do the job.

In a dental office, self-employed dental hygienists are paid, whether by percentage or by hourly rate, only a fraction of the fee for their service. The reason for this is that the dentist/office provides the administration, the patients, the utilities, the support staff, the equipment and often the supplies. This will vary slightly according to individual contract agreements, but is clearly justified.

Administration is something the dental hygienist can choose to do. From a personal perspective I have found that bookkeeping is not one of my strengths. Dental hygienists collaborating with a dental office, could perhaps by mutual agreement, make use of the dentist's administration staff in exchange for a flat fee or a percentage of billings.

In an LTCF the patients are referred by the facility with each individual's consent, the utilities and often support staff are supplied. The benefit to the facility is that in referring patients they are meeting their legal obligation to provide access to yearly oral assessments for their clients.

Supplies can easily be purchased by the dental hygienist. Even in a dental office, the supplies to run the dental hygiene department are small compared to those of the dentist. Equipment, however, can be extremely expensive. Yet, if dental hygienists choose to offer only the most valuable services they can provide, minimal equipment is necessary. For instance,

- a) initiation of dental services requires a few meetings and the development of service contracts,
- b) education may require a blackboard, slide projector and a few inexpensive props, and,

- c) scaling and fluoride can be performed with a chair that reclines, a stool, a portable light and instruments. With a lot of gauze and rinsing, both scaling and fluoride treatments can be done without a compressor or suction.

The dental services that do require compressors, suction, handpieces, etc. are usually more expensive services that can only be provided by the dentist. It, therefore, stands to reason that the dentist would provide their own equipment for those services.

Case Scenario

Holly, the dental hygienist, has completed the "initializing" process with Langview LTCF. She has a service contract with Langview to provide oral assessments, patient and staff education, and, with the collaboration of Dr. David Dentist and staff, to provide dentistry on a fee-for-service basis. In her service contract, Langview has agreed to pay fees for in-service education directly to Holly and all other fees and payments will be made on an individual client basis and will not involve Langview. Holly also has a contract agreement with Dr. David to provide him with access to her charts with preliminary assessment information, medical history and obvious treatment needed. Dr. David has agreed to examine these patients and their medical history, provide dental treatment and an order for Holly to complete dental hygiene treatment. Holly has agreed to pay Dr. David five percent of her billings in exchange for his administration staff services.

Holly meets Pat Patient, 87 years of age. Pat's chief complaint is that he can't leave his denture in to eat anymore. In discussions with Langview's administration staff, Holly receives information that Pat is capable of consenting to his own treatment, however, his daughter Sue is responsible for paying his bills. Holly contacts Sue and discusses Pat's concern and advises her that she has received consent from Pat to do an oral assessment and have Dr. David examine him. The fee for this complete exam is \$60.00 (\$30.00 for Holly, \$30.00 for Dr. David). Sue agrees, thankful that she doesn't have to take her wheelchair-bound father out to an office. Holly books an appointment with Pat and advises Langview LTCF of the time and date.

On arrival at Langview the day of Pat's appointment, Holly meets with the head nurse on duty and discusses Pat's medical history. Pat requires a variety of medications for angina, high blood pressure and diabetes. Other than having had cataract surgery, the remainder of Pat's medical history is clear. Holly then meets with Pat and completes a thorough intra- and extra-oral assessment. In her assessment Holly discovers signs of moderately advanced periodontal disease. Tooth 1.5 has a mobility of 111 and is slightly percussion sensitive. His partial upper denture clasps loosely onto tooth 1.5 and 2.6. Pat reveals that the denture is approximately twenty years old and the last time he had visited a dental office was approximately ten years ago. The tissue under the partial seems irritated and is tender on palpation. There are no teeth with obvious decay and other than tooth 1.5 there are only slight mobilities with no percussion sensitivity. Pat's Periodontal Screening Recording (PSR) score is 2-3

33-

There is an abundant amount of supragingival calculus and a moderate amount of subgingival calculus. Study models are made. Holly discusses her findings with Pat, as well as informing him of the treatment Dr. David may advise if he confirms her findings. She also tells Pat that all information will be passed on to Sue.

At Dr. David's office Holly meets and discusses Pat's case. Dr. David has his administration staff contact Sue to let her know when he will examine Pat. Dr. David suspects from the information Holly has collected that tooth 1.5 will require extraction and the Partial Upper Denture (P.U.D.) relined and reclasped around tooth 1.4. Thorough periodontal scaling will also be required. Fees quoted are as follows:

1.5 Extraction	\$90.00
Reline and reclass P.U.D.	\$300.00
Perio scaling (2 appts.)	\$200.00

The importance of maintaining her father's oral health and how it can affect his nutritional intake of fibrous foods is discussed with Sue. She admits that this is something she didn't consider. It is also emphasized to Sue that regular maintenance appointments thereafter will certainly reduce the overall cost of sustaining her father's oral health. Sue confirms that she will pay for the treatment to which her father consents.

On Pat's appointment day Holly, Dr. David and his assistant meet with Pat at the same time. Dr. David has planned ahead and brought supplies and equipment. After he is introduced Dr. David examines Pat's medical history and his oral condition, confirming that the treatment he forecasted is required. Pat is happy that he can start treatment immediately. A verbal order is given to Holly and while she sees another resident of Langview, Dr. David administers local anaesthetic in the first and fourth quadrants, takes impressions and extracts tooth 1.5. Holly then returns and completes her periodontal scaling in the first and fourth quadrants.

At Pat's second appointment Dr. David returns with Pat's relined and reclasped P.U.D., inserts and adjusts it. He administers local anaesthetic in the second and third quadrants and Holly completes her periodontal treatment. Holly follows up the results of the treatment at her next trip to Langview and agrees to relay any message to Dr. David if there are any obvious concerns.

Dr. David's administration staff will send a bill for the completed treatment to Sue and when the money is collected Dr. David will receive \$420.00 (less lab bill) for two visits. Holly will receive \$230.00 (less administration fee) for three visits and follow-up check.

Pat is happy. His teeth feel better and his denture fits. He can now eat again with his denture in. Sue is happy. She has been educated as to why her father's oral health is important, and his treatment was completed without having to arrange transportation to the dental office. Langview LTCF is happy to assist Dr. David and Holly with the provision of oral care to their residents. They have a caring staff and are now fulfilling their legal obligation to provide access to yearly oral assessments to their clients. Dr. David is happy to have Pat as a new patient. Venturing into LTCFs presents an opportunity for his practice to grow. He was able to see Pat in two short visits with no lost time waiting for consents. Holly is happy — she feels very rewarded by her initiation efforts. She will continue to see Pat on a four-month recall basis. Can it all be this simple? Certainly, however, there are two smaller obstacles that may occasionally be a hindrance.

Obstacle #3

In our case scenario Sue was a very loving and caring daughter. She was open-minded and willing to consider the treatment in her father's best interest. This will not always be the case. There are those who will consent for their own treatment and pay their own bills, and

others who will not feel that dental treatment of any type is necessary. There are those who cannot consent for their own treatment and whose power of attorney is their lawyer, who may indicate there is a shortage of funds. There could be family members who do not consider dental efforts are a worthwhile expense. Whatever the circumstance, it is certainly not the first time dental hygienists have had to "sell" the value of oral health. This is where our skill as educators becomes invaluable. Perseverance will prevail. "Selling" oral health is not like selling a used car. Oral health is an important and integral part of the overall health and well-being of the more frail elderly person.

Obstacle #4

Again in our scenario Langview LTCF was extremely supportive of Holly and her collaborators. Depending on how familiar the facility is with having "outside" services, this can be anywhere from meeting one week and starting the next, to the process of "initiation" taking months. Starting with the more "accepting" facilities can help the dental hygienist and dentist work out a routine while continuing to meet with the more cautious facilities. It is important to realize that each facility will vary in many respects. Some will insist on providing dental hygienists with support staff while others are short-staffed and will rely on them to fend for themselves.

It is of the utmost importance to educate the administration and staff at each facility that dental hygienists are health professionals with strict confidentiality codes, and that they will require access to individual medical information in order to provide basic dental services.

In conclusion of part one of this report, I would like to take the opportunity to encourage all dental hygienists to consider this venue. In my travels over the last year I have met with various LTCFs' staff and administration, Stratford General Hospital Ethics Committee, Community Care Access Centre personnel, local physicians, geriatric patients and their families, I have also taken part in the accreditation process at Brunner Nursing Home (LTCF). The response I have had has been very positive.

LTCFs are required to provide their staff with continuing education in the form of in-service staff training. If you are a dental hygienist who would like to investigate this opportunity further, a good start would be to contact your local LTCFs and offer your skill as an educator in the form of in-service staff training. What better way to become familiar with the administration and their staff and, more importantly, let them become familiar with you!

Ready, Set, Go!

Virginia Perry graduated in 1990 from Confederation College in Thunder Bay with a diploma in Dental Hygiene. She's been working in private practice ever since. Currently, Virginia is working part time in a general practice in Milverton, Ontario. She's also started her own business going into Nursing Homes and providing basic dental hygiene care since November, 1997.

STILL TO COME...

Part two of this report will discuss the results of the oral health needs assessment and highlight some interesting and unexpected findings. The objective of this part is to assist our profession in tailoring our services to meet the areas of greatest need.

Continuing Competence: What Is It? How Can It Be Measured?

By Margaret Wilson, RDH

142

A background paper to research information pertaining to continuing competence was commissioned from Margaret Wilson, RDH, of Edmonton, Alberta, by The Canadian Dental Hygienists Association (CDHA) Council on Quality Practice 1997–1998. The full report is available through the CDHA Resource Centre at CDHA Central Office. The following represents a summary of the investigation.



Margaret Wilson, RDH

Many groups have concerns about professional competence: consumers because of the risks they face in seeking services from incompetent practitioners; professionals and professional associations because of the concern that incompetent members give all members a bad name; employers because incompetent professionals' services reflect back upon those who hire them; educators because incompetent graduates can reflect upon the educational programs and institutions; and insurance companies who have to deal with malpractice suits and fraud charges.

Several factors influence professional competence. It has been estimated that our technical and scientific knowledge base is doubling about every five to eight years, and will soon begin to double every year in some fields. With such a tremendous explosion of knowledge, it becomes quite challenging for dental hygienists to remain current. Scientific advances have also simplified procedures and treatment protocols to the point in which less educated workers are claiming that they have the ability to perform what was once only within the scope of practice of the highly trained.

The most frequent reason that competence and continuing competence arises in the literature, is connected to accountability. There is a growing public distrust in the competence of professionals. Licensing boards are challenged to provide assurance to the public that licensees meet minimum levels of competence *throughout* their careers, not only at the time of entry and initial licensure.

What is Competence?

All definitions of professional competence claim that more than skill and knowledge are involved in defining competence. Values,

critical thinking, clinical judgement, formulation of attitudes and integration of theory from the humanities and the sciences, should also be part of the definition of competence.

Who should be accountable for the continuing competence of health care professionals? Individual practitioners, educators, regulatory bodies and employers ultimately must be accountable to the public. Discussions on the issues of competence across the health professions indicate that the primary responsibility for continuing competence rests with the individual practitioner. The Canadian Dental Hygienists Association, in their *Code of Ethics*, echoes this statement when they charge the individual dental hygienist with the obligation to provide "competent care". In any helping relationship, such as dental hygiene practice, the requirement of the application of ethical principles of veracity, justice, beneficence and non-maleficence underscores the need for competent practitioners. The public needs to be protected from harm, treated justly, respectfully, and with honesty, goodness and kindness.

How Should Competence Be Measured?

The evaluation of a professional's competence is a difficult and complicated process. The definition of competence identifies several areas that require assessment: clinical skills, knowledge, judgement, attitudes, values, and critical thinking skills. As well, because the evaluation of an individual's competence for professional practice is not a static, one-shot event but instead an activity that needs to occur throughout a professional's career, the appropriate choice of measurement tool can be difficult. It has also been recognized that competence increases with experience and as responsibilities become more involved.

As a result of pressure from consumers and third-party payers, health care professionals across all disciplines have shown an increased interest in developing ways to identify incompetence and evaluate competence, and to motivate practitioners to remain

competent. Some of the proposed strategies include: mandatory continuing education; periodic re-examination; peer review; patient care evaluations; on the job performance evaluation; computer case or skill simulations; self-assessments; professional portfolios or a combination of several different strategies. Each method has its own strengths and weaknesses which are summarized in Appendix B and discussed below.

There is much discussion in the literature surrounding continuing education and professional competence. While it is recognized that continuing education will improve both knowledge and practice, there is no conclusive evidence to indicate whether continuing education does or does not improve a professional's skills. Research also indicates that the process of attending a continuing education course does not necessarily translate into a change in practice habits of the attendee.

Examinations, at both entry level and beyond, are commonly used to establish competence for licensure. Evaluation of competence by this method is favoured because the grading is objective and problems of subjectivity in scoring are eliminated. Examinations allow inferences from test scores to be made about competence which are highly dependable. The problems associated with written tests are that they are time-consuming to develop, they produce anxiety (which may diminish performance), and although they provide information about knowledge and skills, it is the *application* of the information, which remains untested in this system, that impacts performance.

Direct observation of performance, as a method of assessing professional competence, is favoured because it allows for the evaluation of realistic, complex situations. The criteria used to evaluate with this method must apply to a wide range of situations and are usually, by necessity, general. The disadvantages of performance observation in the form of direct observation, performance checklists, or peer evaluations, include observer bias and error and the amount of time and money required to perform the assessment using this method.

Simulations using computers, standardized patients or interactive videos were developed in an effort to overcome the disadvantages of performance tests while maintaining a high degree of realism. Simulations are more objective because the raters judge well-designed problems according to detailed scoring criteria. The biggest criticism of this method of assessing competence is that it is both costly and time-consuming to produce.

Professional profiles and portfolios have recently been recognized as a suitable strategy for recording and verifying professional development. A growing number of professional associations are using the portfolio as a condition of re-credentialing. The value of portfolios is seen in the amount of self-assessment and introspection that the individual practitioner engages in when compiling a personal profile. Also, adult learning principles are reflected in the technique of the portfolio which also enables practitioners to gain access to higher education through credit accumulation. Portfolios have been criticized because they are hard (or impossible) to validate and because of the costs associated with administering their content, as well as the cost of the professional's preparation time. Because portfolios are considered "public property" there is also an ethical issue of confidentiality surrounding their use.

Case review has also been used as a strategy to assess competence. The strength of this method is that the outcomes of treatments are considered. The reliability of this method is questionable though, because many factors contribute to the health and well-being of patients that are outside of the control of even the most competent practitioner.

Professional development strategies are varied and often combine one or more of the already mentioned methods of professional competence assessment in an attempt to overcome the shortfalls that are attributed to any one method. Some combine a self-assessment against established standards, a personal portfolio, plus a written examination (Pharmacy Association, Ontario), others combine minimum practice hours and continuing education experiences (Nursing Association, Alberta), some combine continuing education hours with patient interviews and peer questionnaires (Medical Association, Alberta), some combine peer review and self-assessment (New Jersey Dental Association) and others combine self-assessment and continuing education (American Dietetic Association).

All of the professional development programs discussed in the literature have their own advantages and disadvantages; no one strategy is clearly superior to another. What is clear is that a one-time-only, one-dimensional evaluation is not a reliable method for assessing something as complex and dynamic as the competence of professionals.

Continuing competence is about professional growth, responsibility and accountability. Individual professionals, professional associations and governments are all faced with a very difficult task as they attempt to determine the best method for assessing the very complex issue of continuing competence.

Since graduating from the Dental Hygiene Program at the University of Alberta in 1971, Margaret Wilson has obtained a Bachelor of Education degree and is currently enrolled in a Master of Education program. Margaret is Associate Clinical Instructor in the Faculty of Medicine and Oral Health Sciences at the University of Alberta where she has been involved with dental hygiene education for the past 24 years.

Appendix A

COMPETENCE DEFINED

The ability of a practitioner to apply, in a manner consistent with the standards of the profession, the required knowledge, judgement, attitudes, skills and values to perform safely in the domain of possible encounters defining the practitioner's scope of practice.

Continuing competence is the ability of the practitioner to demonstrate, at any particular time, competence to practice.

Note: Judgement as used in this definition refers to critical thinking abilities while skills refers to both technical and interpersonal skills.

Appendix B

ADVANTAGES AND DISADVANTAGES OF COMPETENCE ASSESSMENT STRATEGIES

METHOD	ADVANTAGES	DISADVANTAGES
Continuing education	• prevents obsolescence • could increase public confidence	• courses are not always relevant • administrative problems for associations • does not guarantee performance change
Examinations	• objectively scored • outcomes are related to knowledge • reliable, valid	• time consuming to construct • anxiety-producing • do not prove application of knowledge
Direct observation (peer review) (performance check lists)	• observable behaviours • realistic, complex situations • immediate feedback • promotes accountability	• costly • time-consuming • must train/calibrate raters • may not reflect true practice • observer bias
Simulations	• allows for application under safe conditions	• costly • time-consuming to produce • computer skills may be needed
Self-assessments	• encourages introspection • promotes autonomy	• highly subjective
Portfolios	• promotes self-reflection • necessary for professional autonomy	• lack objectivity • time-consuming to produce • costly to administrate • ethical issue of confidentiality
Case review	• outcomes of treatment are considered • knowledge based	• reliability in questions • actual performance (communication skills) not considered
Professional development program	• combination of strategies in an attempt to overcome shortfalls of one • follow principles of adult learning	

SELF-ASSESSMENT TEST (continued from page 138)

Answer Key and Rationale

11. (1) All clients should be treated as if they are known carriers of the Hepatitis B Virus.
12. (3) For a clinical study on the efficacy of an agent, a control group would be important.
13. (2) The vital signs are slightly above normal which creates an increased risk of an asthma attack. Performing noninvasive assessment procedures and retaking the vitals allow some relaxing time. If the vitals do not change, the dental hygienist should consider postponing the appointment.
14. (3) Health attitudes, beliefs, and behaviors are often very different in different cultures. Past dental experience also influences current and future behavior. Economic issues are paramount and availability of a dental service unit does not ensure that the people will use it.
15. (3) Due to the active and extensive infection, it would be most appropriate to change the treatment plan.

The Honduras Adventure

By Donna Kittle, B.Sc., RDH



Donna Kittle, B.Sc., RDH — administers basic hygiene care to a child patient in Honduras

It was not a wonderful holiday, nor could it be called a pleasure vacation — perhaps a more fitting term would be “a challenging rugged adventure”. In January 1998, the Kindness in Action Service Society of Alberta, an incorporated non-profit charity, made their annual pilgrimage to Honduras, Central America, to deliver basic dental care to this third world country.

Who would have guessed that wintery February day in 1993, when Dr. Amil Shapka, a dentist from St. Paul, Alberta, met with others and developed the seeds of this idea. By the summer, the challenge was a reality. Shapka and three other Canadian dental volunteers joined an American dental contingent already established in Honduras. Now this journey is an annual event with a waiting list of volunteers willing to pay for the adventure. By this year, Kindness in Action had grown to over 50 volunteers, mostly Canadian dentists, dental hygienists, dental assistants, translators, dental students, dental lab technicians, photographers and non-medical staff, as well as optometrists. The volunteers from across Canada and the U.S. pay their own airfare and accommodation and work without compensation.

There are few local Honduran dentists to tend to the needs of the isolated Hondurans far from the cities. The dental volunteers known as “Escoupa Groupa” (Spanish for the Spit Group) are widely welcomed by the Honduran people. The dental missions include both general dental duties such as basic dental examinations, extractions, hygiene instruction, basic hygiene cleaning, simple restorations and denture placement. The group also works alongside a group of ophthalmic professionals, who provide eye exams and dispense used glasses. Everyone worked together, with the nearest available volunteer doing duty supporting the group in whatever way was necessary

— holding flashlights, carrying babies, setting up equipment, or running supplies and instruments back and forth from the sterilization table. This year approximately 700 patients were seen by the two groups. Over 1000 extractions and 300 fillings were performed, 30 sets of dentures made, and at least 15 cleanings were done in the two-week period.

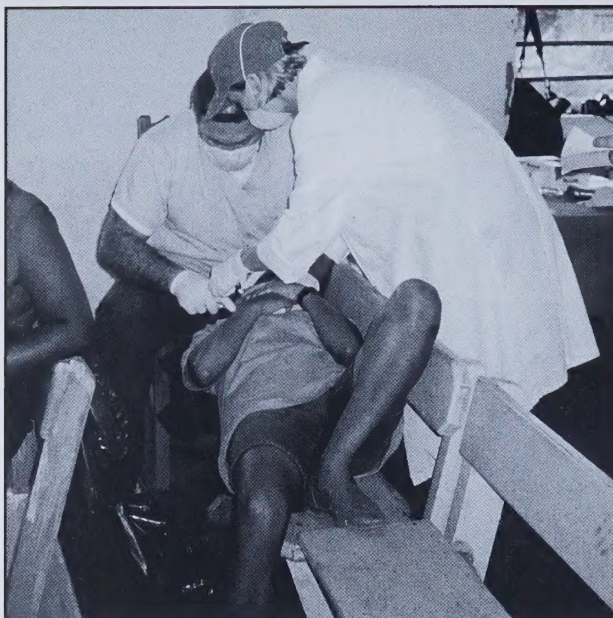
Working side by side, in a constantly changing rustic environment, all the volunteers showed a personal commitment to helping the poor in the villages of the Danli and El Paraiso areas. “Escoupa Groupa” met the challenge again this year, working in a bare-bones environment without the convenience of “essentials” such as electric dental chairs, fixed lighting, suction, or even electricity, without coming apart at the seams! This year Group One experienced further challenges in having to work without important dental luggage, lost in transit, which only arrived at the end of their mission.

This year, the group of fifty was divided into two overlapping groups (twenty-five per group) which were further subdivided into a home and an away team. On January 17th, the first group left Canada, with Group Two following a week later. It was amazing to watch twenty-five strangers working together to build a camaraderie and work as a unified team, letting go of personal expectations and agendas, and getting the job at hand done as quickly and as efficiently as possible in the harsh working environment.

The teams were transported in the back of vans or trucks down dusty goat paths called roads and highways. The clinic would be set up in a church, school, or community hall. Starting with a bare room, the team would quickly assemble a makeshift clinic with four or five stations including one area for fillings (if electricity was available), two or three for extractions, and one or two for hygiene if needed. Each team had two translators, but by the end of the five days, everyone’s Spanish had improved immensely. In Group One this year, the dental lab people made thirty sets of dentures and the optometrists performed 150 eye exams and distributed used eyeglasses.

Tired and hungry, with sweat running down their faces, the volunteers attended to all the requests of the long line-up of villagers who often waited patiently for hours for their turn. The villagers paid a very nominal one-time fee for extractions or fillings — money which stayed in the local community.

After the first few cases of “bombed out” mouths, one quickly changes one’s professional attitude from the North American perspective of “preventive dentistry” to one of “basic needs” dentistry. On these missions we found ourselves asking “when will the next dental group be in the area?” and “will this patient’s small caries

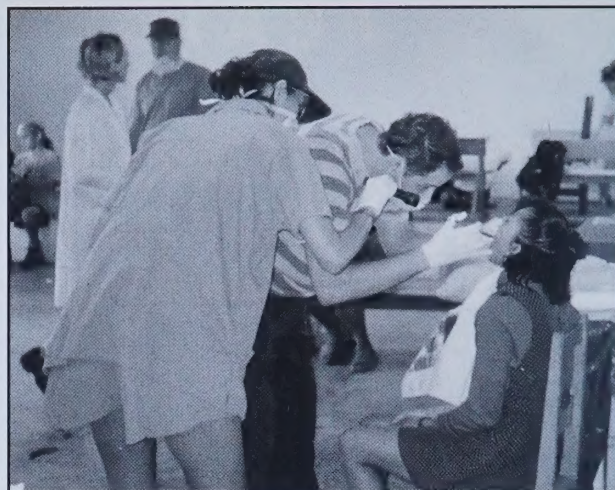


Back to basics — This patient lies flat on a wooden bench to receive his treatment.

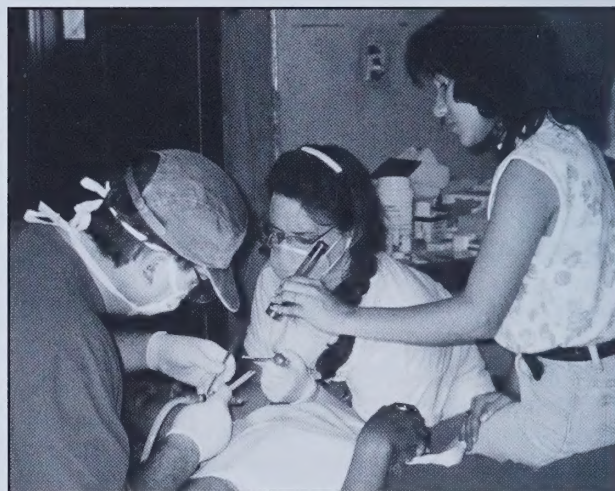
become painful in the next two months with the continued high sugar diet, or should the tooth be extracted now?" North American perfectionism, a quality strongly represented in dentistry, can rarely be achieved in a situation where life and working conditions are so rustic and basic — sterilization, instrumentation, equipment, supplies, either a total lack of, or very limited electricity, and the simple needs of the patient are the most important factors. One patient, for example, asked that two teeth be left in her mouth, one on the bottom and one on the top, so that she could chew her corn tortillas. They were all she had left in her fully decayed mouth!

Although progress has seemed slow for the Kindness in Action volunteers, the "slow progress" represented giant steps for the people of the Danli and El Paraiso areas. The original vision has grown from one of pain control to one of nurturing the seeds of self-sufficiency. This year a pilot project was set up with the cooperation of the Honduras Ministry of Health to send a newly-graduated, full-time, Honduran dentist to Danli and El Paraiso for six months. With equipment and supplies left behind by Kindness in Action, he will train three local Hondurans to give hygiene instruction, do cleanings, and extractions and thereby establish a community-based clinic in the area. In Honduras Grades 1 to 6 of school are compulsory, after which children start to work if it is available. Teenage pregnancies are a common problem too — probably as a result of the poor education and prospects of these young teenagers. This year Kindness in Action set up a trust fund to send fifteen children to Grade 7. In addition, they raised money for an irrigation project and the beginnings of an electricity project which would generate employment through the establishment of a wood workshop.

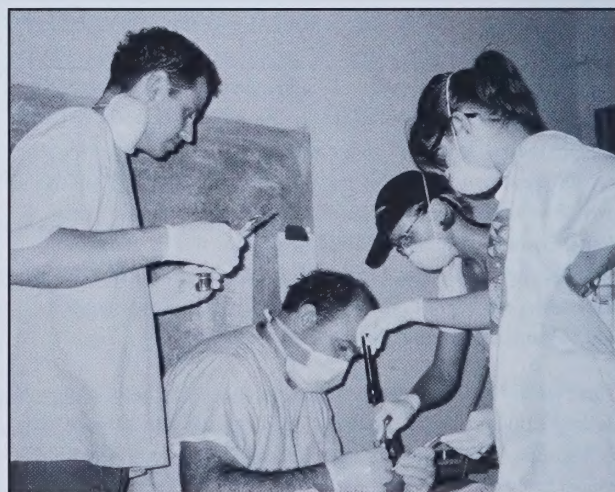
When individuals are motivated by a strong belief in the dignity of all people and the right to basic human needs, they can achieve no end of miracles. Kindness in Action stands to be the greatest professional and personal experience those of us who participated will ever have. The sincerity, warmth and gratitude of the Honduran people has touched and changed every volunteer, and inspires us to return in succeeding years.



Open wide — This woman receives her care while sitting on a wooden chair, no electric dental chairs here.



Six-handed dentistry. This proves that it can be done without the modern North American equipment we have become accustomed to.



Eight-handed dentistry. Where did that dental luggage go?

Donna Kittle graduated from the University of Louisville, Kentucky with a Bachelor of Science Degree, and has worked as a dental hygienist in both public health and private practice. Recent dental experiences include working in Saudi Arabia and volunteering in Honduras with "Kindness in Action".

ARTICLE:

Can One Acquire Periodontal Bacteria and Periodontitis from a Family Member?

147

Reviewed by Carol Barr Overholt, Dip.D.H., Contributing Editor

Authors: Sirkka Asikanen, DDS PhD; Casey Chen, DDS PhD; Satu Alaluusua, DDS PhD; Jorgen Slots, DDS PhD
Journal: JADA, Vol 128, September 1997

Two specific pathogens commonly associated with both localized juvenile and adult periodontitis are *Actinobacillus actinomycetem-comitans* (*A.a.*) and *Porphyromonas gingivalis* (*P. gingivalis*). The purpose of this paper is to review the literature surrounding the authors' suspicion that these bacteria may be communicated between family members in their everyday interactions.

Data from earlier studies support that infants and toddlers do not display colonization of the *A.a.* and *P. gingivalis* bacteria, and that even those children who do acquire these microbes display only a transient attachment to them. Typically *A.a.* becomes established between the ages of five and seven, while *P. Gingivalis* becomes a distinct colonizer after puberty, though is still only seen in conjunction with periodontal disease.

These bacterial culprits take up residence in inflamed sulci but are also associated with deposition on the tongue, mucosal surfaces and are found in the saliva. Periopathogens are communicated from person to person through salivary exchange.

The authors reference recent research indicating that the majority of clients with periodontitis shelter identical genetic clones of periodontal pathogens in both their saliva and deep periodontal pockets. They can trace the pathogens from the sulci to the saliva. Further, if the periodontitis is treated into remission, the salivary levels of *A.a.* and *P. gingivalis* dwindle. Therapy within six months is recommended to reduce the overall bacterial load in the oral cavity.

Care should be taken in the tracing of bacterial communication from person to person, that researchers identify identical genetic strains. Spouses, for example, though they may have the same bacteria present, may have been inoculated separately by parents and grandparents, rather than their spouse.

Factors that may alter the salivary transmission and establishment process of the MO's include: frequency of exposure to saliva that is infectious, the recipient's vulnerability to bacterial colonization, and the person's age — the older the person the more likely they are to already have an established ecosystem that resists new invasion.

The most common route of transmission is from parent to child. It is called the vertical route. Less common, but also documented, is the horizontal route of transmission: spouse-to-spouse. The familial routines and habits, as well as bacterial virulence traits, influence the susceptibility of the mouth to the colonization of *A.a.* and *P. gingivalis*.

One study of 20 couples demonstrated that spouses of clients with periodontitis exhibited greater amounts of supra/sub-gingival calculus and gingival suppuration.

The authors propose this admittedly small study as the first scientific evidence documenting that putative pathogens are not only passed from partner to partner, but that these transmissions result in periodontitis in the receiving spouse's mouth.

The authors conclude with a recommendation that this indication of disease transmission warrants further "well-controlled studies on the infectious aspects of periodontal disease and on the means of reducing the risk of acquiring periodontal pathogens from infected people."

“
The most common
route of transmission is from
parent to child. It is called
the vertical route.”

Continuing Education Websites

By Karen Wolf, Dip.D.H.

148

Summer is upon us again and I hope some of you will be enjoying the warm weather instead of staring blindly at a computer screen. But, for the occasional rainy day, I have chosen to devote this article to those of you who are organizers and planners. The sites I will be discussing are all continuing education sites, with programs that can be completed from the comfort of your home computer. So... take notes and take advantage.

The first site is from Temple University with courses ranging in price from \$75-\$125 (American). Be forewarned that while these courses look appealing, they seem to be released at varying times. To be honest I'm not sure how this works, but those interested can register online then pursue their "released" course of choice. View this site at: <http://www.temple.edu/dentistry/di/ce/>

The next site is brought to you by Dental X Change and UCLA Periodontics Information Center. This site offers a course library and exams upon completion of the program. Registration is free! There are many courses (examples are Oral Malodor and Microbiology of Plaque) and there is a wide selection of Periodontal topics. The address is: <http://www.ceonline.com/index.htm>

The best site I have been able to locate to date that is free, is the site sponsored by Proctor and Gamble at: <http://www.dentalcare.com>. Here you will find program descriptions as well as courses for the dental assistant, dental hygienist, dentist, and dental office manager. You have to register with a user name and password, but the rest is free of charge and you are given the option to print a certificate of completion for verification. To test this site I took the time to complete the course on Adult Learning, earning myself two hours of valuable continuing education updates from the comfort of my

home. The course was easy to work my way through and I learned a few tips which I was able to implement immediately.

Now for a few tips on what to avoid. There are several sites with only continuing education directories for *onsite*, not *online*, programs. You should be very careful to avoid getting caught up into registering for programs before you read the fine print. For example at: <http://www.concentric.net/~fice/index.shtml> the courses listed are onsite programs, and all require fees ranging from \$25-\$99US. After reading further you find out that all courses are only open to specific US states and are *not* international in scope. They do offer two online courses but these too are not international.

Another "directory" site to avoid is: <http://www.dent.unc.edu>. This lists onsite fee-for-instruction continuing education courses at the University of North Carolina; useful if you are passing by that way, but not if you are only intending to travel on the web!

I encourage every CDHA member to make use of these web sites to assist them in their quest for further education. Enjoy!!



Karen (Malloy) Wolf graduated from Dalhousie University's School of Dental Hygiene in 1984. She has practiced in general private practice for the past 14 years and continues to do so four days a week. She taught Radiology at the Nova Scotia Institute of Technology on a part-time basis for two years. She has delivered oral health presentations to local daycare centres, schools and Brownie groups. She is married with three children.

CONTINUING EDUCATION CALENDAR

OCTOBER

2-3

WHAT'S NEW IN ORAL HEALTH

Presenters:

Various Dental Health Specialists

For more information, please contact:

Continuing Dental Education,

Faculty of Dentistry, Dalhousie University

Information (902) 494-1674

OCTOBER

23-25

CONGRÈS 1998 DE L'ORDRE DES HYGIÉNISTES DENTAIRES DU QUÉBEC

*L'hôtel Loews, Le Concorde de Québec
Renseignements (514) 284-7639*

ou 1-800-361-2996

NEW PRODUCTS

Use of Colgate Total™ Is On the Rise

New research shows that Colgate Total™ is now the most popular toothpaste with dental hygienists and dentists alike.

Colgate Total™ received US FDA approval in July 1997, was introduced to dental hygienists and dentists in October, and began shipping to stores nationwide in December last year.

A new collaboration between The Canadian Dental Hygienists Association and the Colgate-Palmolive Company the makers of Colgate Total™, has led to a new tracking study which shows that just months into its record-breaking introduction, Colgate Total™ is now the most used and recommended toothpaste by dental hygienists and dentists. The tracking study, commissioned by Colgate, was conducted by telephone in mid-February with a nationally representative sample of dental hygienists and dentists in general practice. The results of this research may be seen in Colgate advertisements currently airing on American television.

The following information is reprinted in part from a recent Colgate-Palmolive Company news release:

"Canadian and American dental hygienists and dentists, the experts consumers trust most, have switched toothpastes; and more are choosing Colgate Total™ over any other toothpaste as their personal choice for home oral care. Not only are they using Colgate Total™ themselves, the research also shows that they are recommending Colgate Total™ to their patients more than any other toothpaste.

Called the greatest revolution in toothpaste since the introduction of fluoride, ColgateTotal™ works between brushings to help prevent the most common dental problems people experience today — gingivitis, plaque, cavities, tartar and bad breath. The first and only toothpaste to be approved by the US Food and Drug Administration and to receive the American Dental Association Seal of Acceptance for protection against plaque, gingivitis and cavities, Colgate Total™ has now been embraced by those who know best, North America's dental hygienists and dentists."

149



LETTRE À LA RÉDACTRICE

Le 26 mai 1998

Madame,

Au nom du Regroupement des hygiénistes dentaires francophones de l'Ontario (RHDFO) je vous remercie vivement d'avoir publié des annonces et nouvelles, en français, dans votre bulletin *Probe*. En tant que francophones et bilingues, nos membres portent attention à ces détails et apprécient beaucoup lire des articles en français.

La présidente,
Lyne Bouffard

RIFSSSO,
C.P. 46041-144, rue Yonge,
Toronto (Ontario) M5B 2L8

Téléphone : (416) 968-6759, sans frais 1-800-265-4399
Télécopieur : (416) 968-6838

Quelques mots de la rédactrice

Dans un effort continu, l'ACHD est fière d'offrir un service de haute qualité dans les deux langues officielles en vue de favoriser l'avancement de la profession d'hygiéniste dentaire. L'Association est toujours heureuse de recevoir vos commentaires et suggestions. En tout temps, vous pouvez communiquer directement avec le bureau principal de l'ACHD au (613) 224-5515, ou si vous êtes membres, profitez-en avec la ligne sans frais au 1-800-267-5235. Dites-le-nous.

Par télécopieur : (613) 224-7283

Par courrier :
L'Association canadienne des hygiénistes dentaires
96, promenade Centrepoin
Nepean (Ontario) K2G 6B1

Par courrier électronique : ajw@cdha.ca

EXAMEN AUTO-ÉVALUATION



Préparé par le Bureau national de la certification en hygiène dentaire (BNCHD). Le BNCHD est l'organisme chargé d'élaborer, d'administrer et de noter l'examen national de certification en hygiène dentaire, et d'en diffuser les résultats. L'ACHD en partenariat avec le BNCHD est fière de vous offrir des exemples de questions susceptibles de figurer à l'examen national de certification en hygiène dentaire dans les éditions du journal

Probe. Les questions à titre d'exemples sont basées sur une série de 49 questions et réponses retrouvées dans le Guide de demande d'admission (1998) disponible par le BNCHD. Les questions de 6 à 10 ont été publiées dans l'édition Mai/Juin 1998 volume 32 numéro 3 de Probe.

Pour obtenir de plus amples renseignements, veuillez communiquer avec le :

Bureau national de la certification en hygiène dentaire,

C.P. 58006, Orléans (Ontario) K1C 7H4

Téléphone : (613) 837-2727 Télécopieur : (613) 837-6971

150

11. M. Lang, 30 ans, se présente à son rendez-vous. Il mentionne qu'il a contracté l'hépatite B il y a environ un an. L'hygiéniste dentaire devrait tenir compte de quel élément en matière de prévention des infections?

1. Suivre le protocole habituel relatif aux instruments et à l'équipement avant de traiter le prochain client.
2. Faire une double désinfection/stérilisation avant de traiter le prochain client.
3. Suivre le protocole habituel relatif aux instruments et à l'équipement et laisser reposer le désinfectant sur l'équipement pendant une plus longue période.
4. Faire une double désinfection/stérilisation en portant deux paires de gants.

12. Lorsque l'hygiéniste dentaire consulte un article sur l'efficacité d'un agent désensibilisant, quelle variable de recherche est la plus importante à vérifier?

1. Taille de l'échantillon supérieure à 50
2. Échantillonnage au hasard
3. Groupe témoin
4. Consentement éclairé

13. M. Samuel Laframboise, 35 ans, souffre d'asthme d'intensité moyenne. Il est en retard de 20 minutes à son rendez-vous et arrive au cabinet dentaire en courant. Ses signes vitaux sont comme suit : tension artérielle de 143/89 mmHg, fréquence cardiaque de 88 battements/min et fréquence respiratoire de 20 respirations/min avec une respiration laborieuse. Que devrait faire l'hygiéniste dentaire?

1. Fixer un nouveau rendez-vous parce qu'il est 20 minutes en retard.
2. Effectuer des mesures d'évaluation non invasives et révéifier les signes vitaux.
3. Référer le client à son médecin pour une consultation avant de prodiguer quelque service que ce soit.
4. Consigner les signes vitaux et entreprendre le débridement.

14. Une étude en santé dentaire de la région nord-est d'une grande ville canadienne et portant sur 40% de la population citadine, révèle que l'accès aux services de soins dentaires adéquats est limité. Les données montrent que la population se compose majoritairement de groupes multiculturels à statut socio-économique inférieur à la moyenne. Il existe une école de médecine dentaire bien établie dans le sud-ouest de la ville. Quelles activités initiales de promotion de la santé buccale permettraient le mieux de répondre aux besoins de cette population?

1. Faire une diffusion massive de publicité postale au hasard, dans la langue appropriée, aux groupes cibles précis pour faire la promotion des services de l'école de médecine dentaire.
2. Entreprendre la construction d'un cabinet dentaire complet dans la région. Utiliser les services des étudiants en hygiène dentaire et en dentisterie pour offrir des services de santé dentaire à coûts moindres.
3. Établir un dialogue en collaboration avec les membres des communautés ethniques clés et les fournisseurs de soins de santé pour étudier les attitudes, croyances et comportements précis de cette population cible.
4. Déployer des efforts concertés avec les fournisseurs de soins de santé existants afin de partager l'information sur cette population cible.

15. Le plan de traitement de M. Lessard comprend quatre rendez-vous pour le débridement parodontal et des conseils relatifs aux soins personnels. À sa deuxième visite, M. Lessard présente une stomatite herpétique. Que devrait faire l'hygiéniste dentaire?

1. Effectuer le débridement dans la région présentant le moins de lésions.
2. Demander à M. Lessard de se rincer la bouche au chlorhexidine avant le traitement.
3. Reporter le traitement de 7 à 10 jours.
4. Référer M. Lessard à un médecin pour un test de Papanicolaou.

Clé de réponses et justifications ...suite à la page 153



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION

L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Protégez-vous Protégez votre carrière

Votre carrière est importante, vous devez donc la protéger contre tout recours en justice qui pourrait avoir des répercussions sur votre avenir.

C'est pourquoi l'Association canadienne des hygiénistes dentaires (ACHD), en collaboration avec F. Pigeon et fils Courtiers d'assurances Ltée, vous offre une protection (faute professionnelle) pour toute erreur, omission,

ou négligence commises dans l'exercice de services professionnels d'hygiène dentaire.

De plus, afin de mieux vous protéger, l'ACHD a conclu une entente pour couvrir les dépenses légales encourues en cas de mesures disciplinaires et de réclamations ayant trait à l'abus sexuel.

Pour plus de renseignements, veuillez communiquer avec l'ACHD au (613) 224-5515.



F. PIGEON & fils
COURTIERS D'ASSURANCE LTÉE/INSURANCE BROKERS LTD

**RAHDC — LE RÉGIME D'ASSURANCE CONÇU POUR LES HYGIÉNISTES
DENTAIRES CANADIENS**

Asset Allocation



**MIDLAND
WALWYN**
BLUE CHIP THINKING™

Asset Allocation Can Put Money Ahead and Worry Behind

For most of us, building our Registered Retirement Savings Plan (RRSP) is the most effective way to put money ahead and worry behind. But with so many RRSP investment options, how do you know which combination is right for you?

Asset allocation is a simple process that can nevertheless have a dramatic effect on your investment returns. For example, one study of pension managers showed that more than 91% of a portfolio's return depends not on specific stocks, bonds or mutual funds selected, but on how money is allocated among different types of investments.*

Mutual Funds and the Power of Diversification

It is worth exploring mutual funds that seek a high total investment return by using an integrated asset allocation strategy seeking out bonds, equities and money market investments. Some may also invest in foreign securities up to the 20% maximum foreign property limit. A fund's asset mix of stocks, bonds and short-term investments can offer investors with the right time horizon growth potential without the risk of a pure equity fund.

Successful fund managers look at a broad range of market and economic variables and as market conditions changes, the fund's portfolio is altered in an effort to maximize returns while minimizing risk.

International Investments Can Reduce Risk

Asset allocation can also help reduce volatility — or risk — while pursuing higher returns. Stocks have traditionally expressed greater short-term price fluctuations than bonds. So when stocks fall in value, for example, the income from bonds or money market investments may help offset the decline.

Finally, since not all of the world's stock markets move in lockstep, adding international investments to your portfolio can potentially reduce volatility further. Your financial advisor can help evaluate your portfolio and provide further information on the benefits of asset allocation.

* Source: "Determinants of Portfolio Performance II: An Update," *Financial Analysts Journal*, May/June 1991. Based on data collected from 82 pension plans from 1977-1987.

For more information, call your local Midland Walwyn Financial Advisor.

152



John Abbott Graduates and Staff

You are cordially invited to celebrate the 25th anniversary of the Dental Hygiene Department and the official opening of our new facilities on the John Abbott College campus, Saturday, September 26, 1998 from 2:00 to 4:00 p.m.

For more information:

Fax: (514) 457-7733

E-mail: gjohnson@johnabbott.qc.ca

Tel: (514) 457-6610 ext. 644 (Paddi)

Perio REPORTS

Bimonthly publication designed for dentists and dental hygienists concerned about their patient's periodontal health. Each issue summarizes periodontal research of specific interest to clinicians. Easy to read format keeps you up to date on the latest research findings.

Journals reviewed for **Perio REPORTS** include:

Journal of Periodontology
Journal of Clinical Periodontology
Journal of Periodontal Research
Journal of Dental Research
Periodontal Abstracts
Quintessence International
JADA, JADHA



Please send sample issue for my review



\$48 one-year



\$84 two-year

Name _____

Address _____

City _____ Prov. _____ Postal Code _____

Mail to:

PerioREPORTS, P.O. Box 52090
311-16th Ave. NE, Calgary, Alberta T2E 8K9

Life Insurance

By Terry Kennedy, an Account Executive within Sun Life's Association Business Division

I write this article with a heavy heart. I'm saddened and shocked by the untimely deaths of a close friend and his young son and deeply concerned for my friend's wife who, as I write this, lies in a hospital in the United States on life-support systems.

I've been in this industry for over twenty years and have seen a lot of claims paid. Fortunately, most of the claims have been for someone I didn't know. Every now and then, I'm reminded of how fragile and precious life is when I discover that the claim being paid is on the life of someone I know. We are praying that my friend will recover. We know, however, that her life will never be the same and she'll need all the love and support her friends can give her. Her husband and her son were the only family she had in this country.

I know my friend is well provided for by her husband. He had a large life insurance policy that he had taken out several years ago. We had spoken at some length one evening over coffee about the importance of just such coverage. They have a successful business and had just purchased a large new home, on which they made sure they had mortgage insurance. Everything in my friend's life is in turmoil, indeed her very survival is in question. But should she recover, her financial future is the one thing that is secure.

Our friends arrived in Canada with very little capital behind them, dizzy with the unlimited opportunities they saw before them. They had been sweethearts as teenagers, had married and decided to take

a chance in a new country. They built a business from a concept they had learned about in California. The business became a wonderful success and the money came rolling in. Everything was going wonderfully for my friends — the world was their oyster!

My husband and I visited with them in the week before they left for a vacation. They were excited about going away. They had taken a similar trip once before, but this time their son was a little older and the trip would be a lot more fun for him. They were planning to be gone a month. We wished them well and made plans to visit them in their new home upon their return. We heard nothing from them until we read the report in the newspaper of the tragedy that befell them. A fire claimed the lives of one friend and their son, and has left one in the hospital, her life forever changed.

How quickly life is snuffed out! We feel overwhelmed with sadness and a sense of loss. We hold each other tightly and remark how quickly it can end. We took the time last night to find our own insurance policies and determine if they were still sufficient and appropriate to our situation today. I urge you to do the same.

If you find your coverage lacking, take the time to call your Sun Life Association business Customer Service Representative. They are available Monday to Friday, from 8:30 a.m. to 4:30 p.m. EST at 1-800-669-7921. They will be pleased to assist you with increasing your coverage and will answer any questions you may have.

153

Classified Ad Rates

Fifty (50) words or less, \$26.75 (GST included).
Additional words: \$0.54 per word (GST included).

Closing date for the receipt of copy is approximately one month prior to publication date:

DEADLINE	ISSUE	CIRCULATION DATE
December 10	January/February	January 15
February 10	March/April	March 15
April 10	May/June	May 15
June 10	July/August	July 15
August 10	September/October	September 15
October 10	November/December	November 15

Advertisers' Index

BLOCK DRUG	IBC
CDHA	126 & 151
COLGATE	OBC
JOHNSON & JOHNSON.....	124
ORAL B	IFC
PERIO REPORTS	152

EXAMEN AUTO-ÉVALUATION (suite de la page 150)

Clé de réponses et justifications

11. (1) Tous les clients doivent être traités comme s'ils étaient des porteurs déclarés du virus de l'hépatite B.
12. (3) Un groupe témoin serait important pour une étude clinique sur l'efficacité d'un agent.
13. (2) Les signes vitaux sont légèrement au-dessus de la normale ce qui crée un risque accru de crise d'asthme. En effectuant des interventions non invasives et en revérifiant les signes vitaux, on obtient un certain temps de relaxation. Si les signes vitaux n'ont pas changé, l'hygiéniste dentaire devrait envisager de remettre le rendez-vous à plus tard.
14. (3) Les attitudes, croyances et comportements relatifs à la santé sont souvent très différents au sein de cultures différentes. L'expérience dentaire antérieure influe aussi sur le comportement actuel et futur. Les questions économiques sont primordiales et la disponibilité d'une unité de services dentaires ne garantit pas que les gens vont l'utiliser.
15. (3) En raison de l'infection active importante, il serait plus approprié de changer le plan de traitement.

Switzerland

Come over and see Switzerland while working as a dental hygienist. We have many jobs to choose from. If you are adventurous, self-motivated, and conscientious, and can speak French, Italian, or German, please send curriculum vitae to:

Silvana Spellini-Vendrasco
Via Alle Cave 21
6925 Gentilino
Switzerland
E-mail: spellini@bluewin.ch

Goose Bay, Labrador

WANTED

A dental hygienist to work in a busy, well established family practice. Position involves working closely with a periodontist and general dentist and participating in public oral health. Office hours are Monday to Friday. Please call Dr. Jill Bulman (709) 896-8500.

Come to the "Lone Star" State

We are seeking exceptional dental hygienists and dental assistants to join our dental team. We offer excellent working conditions in our exquisite private facilities.

If you are a conscientious, caring person with excellent clinical, diagnostic and communication skills... let us create a comprehensive relocation package just for you!

Don't let this opportunity pass you by! You will enjoy the spirit of Texas!

Call collect or fax resume to:

Dr. Carol K. Alverado & Associates
Office (713) 523-5446 or Fax (713) 523-5598 or

Dr. Catherine C. Goodson & Associates
Office (408) 744-5263 or Fax (281) 474-1208

Hope, British Columbia

We are currently seeking a full-time dental hygienist to join our friendly, professional staff. Modern facilities and excellent working hours.

If a five minute drive to work, affordable housing and living in the most beautiful setting in Canada appeals to you this position is perfect. Excellent remuneration according to experience.

Call Dr. Martin Drobis at (604) 869-5412 or (604) 869-3533 in the evenings.

First Annual Symposium

Baycrest Centre for Geriatric Care presents
the First Annual Symposium
GERIATRIC DENTISTRY
Considerations for the Future

Friday, October 16, 1998 — 8:30 a.m. to 3:30 p.m. at the Joseph E. & Minnie Wagman Centre, 55 Ameer Avenue, North York, Ontario (on Baycrest Campus).

The Symposium is intended for dental hygienists, dentists and assistants. Lectures will focus on the changing needs of the geriatric population. The participants will be able to identify changing treatment needs of dental practice and associated education. This program has been approved for six hours of study credit by the Royal College of Dental Surgeons of Ontario. For more information, call (416) 785-2500, ext. 2365.

Terrace, BC

Progressive dental practice requires highly motivated, caring individual, capable of being a team player.

Competitive wages and benefits available based on qualifications and experience. Position available immediately. Apply to:

Attention: Donna Graf
200-4619 Park Avenue
Terrace, BC V8G 1V5
Telephone: (250) 635-7611 Fax: (250) 635-7630

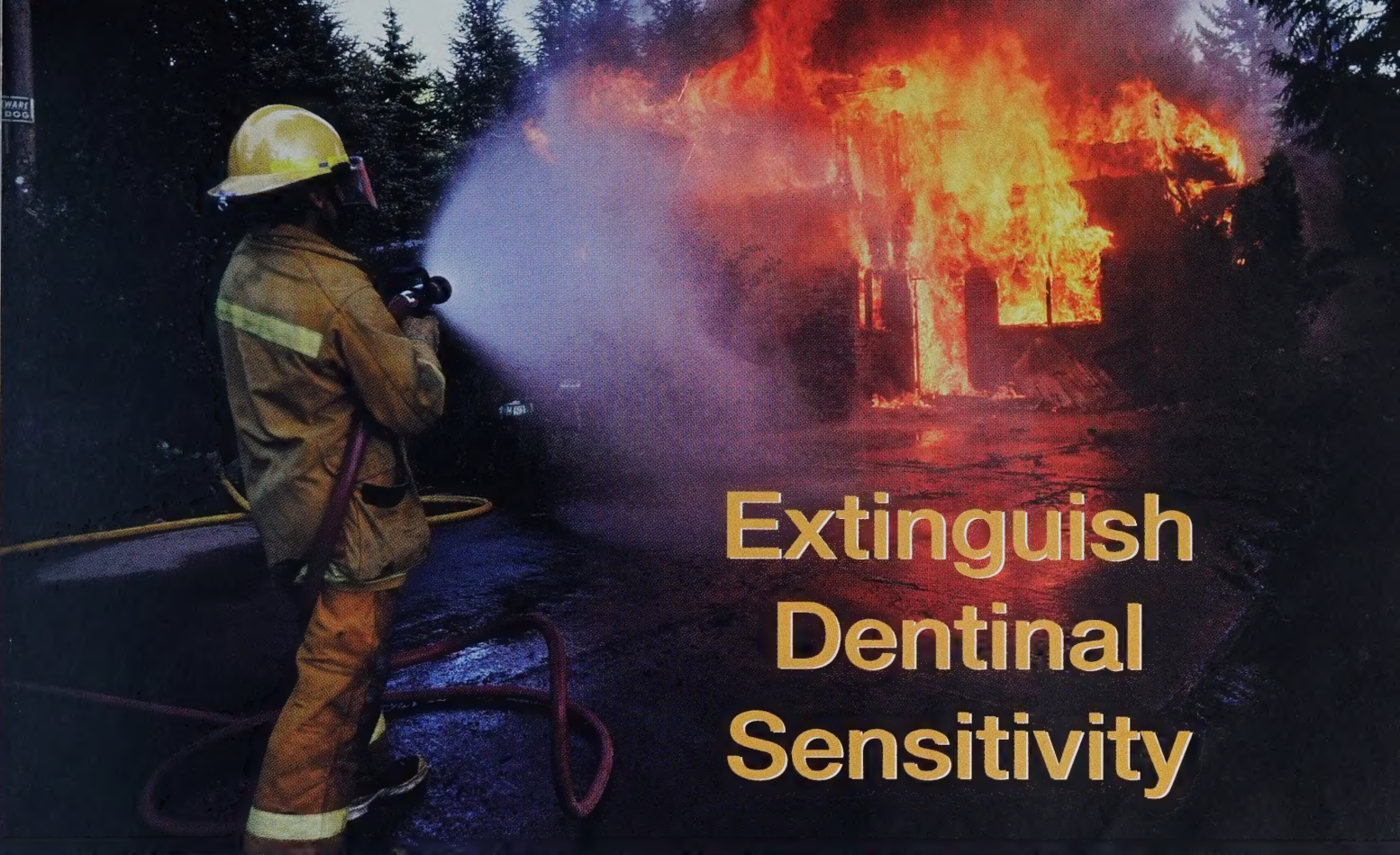
Auckland, New Zealand

Dental hygienist required to take over from a current dental hygienist, a Canadian citizen returning to Canada October-November. Applicant will need to apply for and complete NZ work permit requirements. Information for this purpose can be provided. For further information, please contact the following and include resume:

EF Blair
Poptoe Dental Centre
375 Great South Road
South Auckland, New Zealand

Queen Charlotte Islands, BC

Join our progressive practice and enjoy the magical romance of the Queen Charlotte Islands, BC. We're fully computerized with a new Panorex, caviwed, overhead TVs with CD-ROM patient education. Outdoor activities abound; Vancouver is one jet hour away. Join a staff that's more like family, and call Leslie collect at (250) 559-8384.



Extinguish Dentinal Sensitivity



Sensodyne* Chairside Solution

A one-minute, single-application chairside treatment
for immediate relief from dentinal sensitivity

Effective: 6% Ferric Oxalate, for clinically proven obturation of dentinal tubules

New Indications: Reduction of microleakage under amalgam restorations[†] and under crowns[†]

Long-Lasting: Relief lasts up to 6 months

Improved Packaging: Easier-to-use dropper bottles



Only **Sensodyne*** offers both
chairside and in-home treatment products
to extinguish dentinal sensitivity.



*TM Block Drug Company (Canada) Ltd.

For more information, call: 1-800-387-4588

[†] When cemented using non-composite materials

No dentifrice offers more protection

**CARIES
CARRIES
CALCULUS
CALCULUS
PLAQUE
PLAQUE
GINGIVITIS
GINGIVITIS**

**Colgate Total*
A Technological Advance in Preventive Dentistry.**

Colgate Total is the first and only dentifrice to go beyond caries protection to provide long-lasting protection against plaque, calculus and gingivitis¹. Because of the unique combination of 0.3% Tricosan and the polymer Gantrez, only Colgate Total dentifrice continues to provide a sustained antimicrobial effect for up to 12 hours after brushing². In fact, the benefits of Colgate Total dentifrice in reducing microbial plaque and gingivitis have been established in over 16 independent clinical studies worldwide. The long term studies show an average 45% reduction in plaque, 57% reduction in gingivitis (plaque and gingivitis severity index) and 25% reduction in calculus. That's why Colgate Total is the first and only dentifrice to earn the Canadian Dental Association's seal of approval for gingivitis reduction and in helping to prevent tooth decay.



So if your patient requires the additional protection, recommend clinically proven Colgate Total.
To order Colgate Total, call Colgate Oral Pharmaceuticals at 1-800-255-3756

1, 2 data on file * TM Reg'd Colgate-Palmolive Canada Inc.

Dent
The Canadian Dental Hygienists Association

PROBE

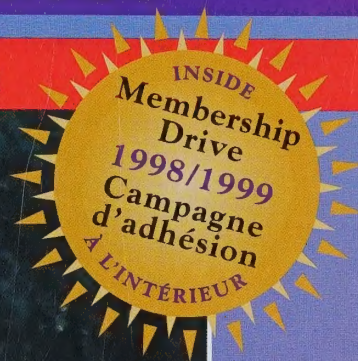
JOURNAL

de l'Association canadienne des hygiénistes dentaires

September/October 1998 vol. 32 no. 5

Highlights from the 9th Annual Conference in P.E.I.

National Dental Hygiene Campaign



No dentifrice offers more protection

**CARIES
CARRIES
CALCULUS
CALCULUS
PLAQUE
PLAQUE
GINGIVITIS
GINGIVITIS**

**Colgate Total*
A Technological Advance in Preventive Dentistry.**

Colgate Total is the first and only dentifrice to go beyond caries protection to provide long-lasting protection against plaque, calculus and gingivitis¹. Because of the unique combination of 0.3% Tricosan and the polymer Gantrez, only Colgate Total dentifrice continues to provide a sustained antimicrobial effect for up to 12 hours after brushing². In fact, the benefits of Colgate Total dentifrice in reducing microbial plaque and gingivitis have been established in over 16 independent clinical studies worldwide. The long term studies show an average 45% reduction in plaque, 57% reduction in gingivitis (plaque and gingivitis severity index) and 25% reduction in calculus. That's why Colgate Total is the first and only dentifrice to earn the Canadian Dental Association's seal of approval for gingivitis reduction and in helping to prevent tooth decay.

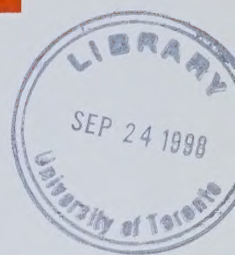


So if your patient requires the additional protection, recommend clinically proven Colgate Total.

To order Colgate Total, call Colgate Oral Pharmaceuticals at 1-800-255-3756

1, 2 data on file * TM Reg'd Colgate-Palmolive Canada Inc.

It's the Intangibles That Count



By Donna Bowes, Dip.D.H.

As membership month for CDHA approaches, I have been thinking about what membership means to me. I am proud to say that I have maintained an active membership with CDHA at both the provincial and national levels consistently over the years. Recent experiences serving on the CDHA Executive Council have reminded me of the satisfaction and fulfilment gained from being involved and truly an *Active* member. These personal, intangible benefits include such things as the excitement you feel when the Board of Directors reviews an innovative strategy or project; the camaraderie and support when you fall ill; the feeling of satisfaction at the successful completion of a strategic planning workshop, and even the challenges of working to find solutions to situations fraught with difficulties. All of these things lead to personal growth and satisfaction but what's more, they spill over to your working environment.

I ventured into clinical demonstrating this past year for the first time and when I was asked to introduce myself to a new group of first-year students, I found myself talking to them about the difference between being a member of a profession and just working in the occupation. I believe that inherent with becoming a member of a profession is not only the obligation to remain current, but also to give something back to the profession. Whether it is at a local, provincial or national level, becoming involved in shaping the dental hygiene profession keeps you motivated and committed to maintaining the viability and growth of the profession.

When I first entered dental hygiene, I recall reading and hearing about such people as Marnie Forgay, Jo Gardner, Ailsa Wood, Patricia Johnson and Esther Wilkins but never in my wildest dreams would I ever have thought that eventually I would meet or work with them. It seems strange to me now to think back to when these and others were people that I considered part of the elite of the profession, people who had made achievements far beyond my reach. What I discovered while taking part in national and provincial associations and working on committees and task forces, was that all these women love the profession of dental hygiene enough to want to give something back. They are all wonderful, sincere women, working to ensure that the profession of dental hygiene continues to evolve and grow to meet the changing needs of our population and the health care environment.

Of course, the tangible benefits of belonging to the CDHA must also be considered. The Board of Directors is constantly challenged with the task of ensuring that the needs of the members are addressed and that the Association remains viable and financially responsible. It is your membership dollars that provide such resources as this journal, a comprehensive insurance plan, a toll-free number to reach CDHA's Central Office, as well as grants and awards.

The Board has responded to the need to assist members who deliver services directly to the public by ensuring the development of dental hygiene billing codes. Currently, CDHA is about to embark on an exciting new national communications strategy, which will meet the often-voiced wish to increase awareness of the public about the dental hygiene profession.

Restructuring from a working board to a policy-making board this year will increase the need for task forces and *ad hoc* committee participation. It is hoped that this will give more members an opportunity to work on special projects or issues over a shorter period of time, rather than requiring the two- to three-year commitment necessary when you become a member of the Board.

Your membership support and participation in these task forces and committees will determine how many issues CDHA is able to address and at what level. I recently heard from a friend whom I had encouraged to participate on the CDHA Board of Directors. She wrote: "I truly appreciate the opportunity for this experience, but more so, I had the opportunity to meet so many wonderful people." *that is what being an Active member is all about.*

“...all these women love
the profession of dental hygiene
enough to want to give
something back”

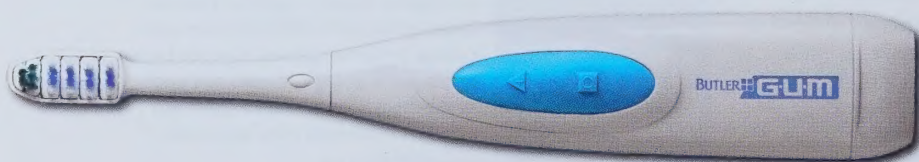


Donna Bowes received her Dental Hygiene Diploma in 1980 from Algonquin College in Ottawa, Ontario, and her Diploma in Gerontology in 1989 from Georgian College in Barrie, Ontario. She has been employed in private practice and public health since 1980 and has a particular interest in working with long-term and palliative care.

**What If You Could
Press A Magic Button And Make All
Your Patients Brush More Effectively?**



Introducing the revolutionary BUTLER G•U•M® Pulse™ Plaque Remover, with a raised center bristle design and unique pulsating brushing action that attacks bacterial plaque along the gum line. In clinical testing the BUTLER G•U•M® Pulse™ Plaque Remover was unsurpassed when compared to a leading brand power plaque remover in reducing plaque, bleeding, and stains. The cordless Pulse saves space because it requires no charger base. And because it's battery powered, the Pulse provides ultimate safety and portability. At a surprisingly affordable price, it's the perfect toothbrush for imperfect patients. The BUTLER G•U•M® Pulse™ Plaque Remover.



BUTLER 
EXPERTS IN ORAL CARE

1-800-265-8353

www.jbutler.com

©1997 JOHN O. BUTLER COMPANY IN97108

159 PRESIDENT'S MESSAGE

It's the Intangibles That Count

By Donna Bowes, Dip.D.H.

163 NEWS

169 MEMBERSHIP DRIVE

The Canadian Dental Hygienists Association:
The Benefits of Membership

172 NATIONAL DENTAL HYGIENE CAMPAIGN

CDHA Campaign Report

Rapport sur la campagne de l'ACHD

175 SELF-ASSESSMENT TEST/ EXAMEN AUTO-ÉVALUATION

Sample questions from the National
Dental Hygiene Certification Board

Exemple de questions du Bureau national
de la certification en hygiène dentaire

178 CASE STUDY

Leading Edge Treatment Using Emdogain™

By Leanne Carlson-Mann, Dip. D.T., Dip.D.H.,
Contributing Editor

181 CAMPAGNE D'ADHÉSION

L'Association canadienne des hygiénistes
dentaires : Les avantages reliés au statut
de membre

184 CONFERENCE REVIEW CDHA'S 9TH ANNUAL PROFESSIONAL CONFERENCE

Tapé Highlights

185 CDHA CONFERENCE EDITORIAL

Good bye from P.E.I., or is it HELLO again?

By Audrey Newcombe, Dip. D.H., B.Sc., V.T.C.,
Conference '98 Co-Chair

186 Conference Review
Birthplace of Confederation
Successfully Unites Dental Hygienists
From Across Canada

187 Acknowledgements —
Sponsors and Exhibitors

188 CDHA'S 10TH ANNUAL PROFESSIONAL CONFERENCE — 1999

161

INFORMATION

180 Probing the Net
By Karen Wolf, Dip.D.H.

191 Midland Walwyn and Merrill Lynch
Combine to Create a Leading Financial
Services Company in Canada

193 Group Home and Automobile Insurance
from Canada Life Casualty

194 Advertisers' Index
Probe Advertising Rates
Classifieds



COVER:

Part of CDHA's new
National Dental Hygiene
Campaign 1998

MANAGER, COMMUNICATIONS SERVICES: Angela J. Whelan, B.A.
EXECUTIVE DIRECTOR: C.M. Worobey, Dip.D.H.
EDITORIAL ADVISOR: K. Edwards, M.A.

CONTRIBUTORS

Carol Barr Overholt, Dip.D.H.
Leanne Carlson-Mann, Dip.D.T., Dip.D.H.
Karen Wolf, Dip.D.H.

EDITORIAL BOARD

Laura MacDonald, Dip.D.H., B.Sc.D., M.Ed.
B. Fortune, Dip.D.H.
Jane Waites, Dip.D.H.
L. Guest, Dip.D.H., B.H.Ed.
R. Lunn, Dip.D.H.

DESIGN: Edels-Marcotte

Published six times a year by The Canadian Dental Hygienists
Association, 96 Centrepoin Drive, Nepean, ON K2G 6B1
Tel (613) 224-5515

Canada Post Publications Mail Registration No. 5793

CANADIAN POSTMASTER: Notice of change of address
and undeliverables should be sent to:

Canadian Dental Hygienists Association
96 Centrepoin Drive,
Nepean, ON K2G 6B1

Subscriptions \$69.55 (GST Included) in Canada, \$110.00 Cdn
for US and \$115.00 Cdn elsewhere. Fifty cents per issue is allocated
from membership fees for journal production. All statements are
those of the authors and do not necessarily represent the CDHA,
its Board, or its staff.

ADVERTISING AND SUBSCRIPTIONS:

Keith Health Care Communications
1382 Hurontario St.
Mississauga, ON L5G 3H4
(905) 278-6700

CDHA 1998
6176 CN ISSN 0 834-1494
GST Registration No. R106845233

CDHA CENTRAL OFFICE STAFF

Executive Director: Carol Matheson Worobey
Manager, Communications Services: Angela J. Whelan
Manager, Finance and Administration: Monique Belleau Rock
Member Services: Sandra VanWart
Member Services Assistant: Louise Lalonde
Administrative Assistant: Shelly Minnie
Receptionist/Information Clerk: Francine Fortin

All CDHA members are invited to call the CDHA's Member Line
toll-free, with their questions/inquiries:

1-800-267-5235, Fax (613) 224-7283

Internet: <http://www.cdha.ca> E-mail: info@cdha.ca

We look forward to serving you.

The Canadian Dental Hygienists Association's Journal, *Probe*, is the
official publication of the CDHA. The CDHA invites submissions
of original research, discussion papers, and statements of opinions
pertinent to the dental hygiene profession. All manuscripts are refereed
anonymously. Contributions to *Probe* do not necessarily represent the
views of the CDHA, nor can the CDHA guarantee the authenticity
of the reported research. Copyright 1998. All materials subject to this
copyright may be photocopied for the non-commercial purpose of
scientific or educational advancement.



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION

L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Confort, sécurité et tranquillité d'esprit

L'Association canadienne des hygiénistes dentaires (ACHD) comprend l'importance de vous sentir en sécurité que ce soit au travail ou ailleurs.

L'ACHD, en partenariat avec Canada-Vie, compagnie d'assurances générales (CVCAG), a élaboré un programme d'assurance-habitation et d'assurance-automobile dont les tarifs concurrentiels et l'ensemble des

indemnités satisferont les besoins particuliers des membres de l'ACHD.

L'ACHD et CVCAG vous invitent à vous renseigner au sujet des rabais accordés aux membres et des options offertes afin d'améliorer vos polices d'assurances. Que vous choisissiez une assurance-habitation, une assurance-automobile ou les deux, vous bénéficierez d'un engagement de qualité.

Pour plus de renseignements, veuillez communiquer avec :



CANADA-VIE
compagnie d'assurances générales

1-888-688-0000

**RAHDC — LE RÉGIME D'ASSURANCE CONÇU POUR LES HYGIÉNISTES
DENTAIRES CANADIENS**

Highlights from the 35th Annual Session of the CDHA Board of Directors

The CDHA Board of Directors held its 35th Annual Session in Charlottetown, PEI on June 19th, just prior to CDHA's 9th Annual Conference. Following a strategic planning session in January, 1998, the Board of Directors had developed a revised Mission Statement for the Association. This session included adoption of the revised Mission Statement. It reads:

"The Canadian Dental Hygienists Association, as the collective voice of dental hygiene in Canada, advances the profession and contributes to the health of the public."

Additional actions included:

- Approval of a new governance model for the Association
- Revision of CDHA bylaws to include the new governance model
- Confirmation of the strategic goals for the next three to five years approved at the January 1998 meeting
- Election of Ms. Lynda McKeown to Vice-President of the CDHA
- Increase in the CDHA Active/Support category fee
- The Inaugural Meeting of the 1998/1999 Board of Directors to be held in Ottawa, October 16–18, 1998
- Approval of funding to support:
 - a national dental hygiene awareness campaign
 - a presence in the Internet
 - completion/maintenance of outstanding 1997/1998 Council projects

The meeting also provided the board with an opportunity to thank retiring Directors for their collective volunteer contributions over the past three years. President Judy Clarke presented recognition plaques to:

Sue MacIntosh, Past President, NS

Sherry Gabriel, Chair, Access and Advocacy Council, NFLD

Marlene Heics, Access and Advocacy Council, ON

Christine Hamilton, Access and Advocacy Council, ON

Patricia Grant, Chair, Education and Research Council, NS

Lynn Guest, Chair, Health Policy and Promotion Council, BC

Dawn Samis, Health Policy and Promotion Council, AB

Heather McElroy, Health Policy and Promotion Council, AB

Diane Skene, Quality Practice Council, AB

Monica Simpson, Quality Practice Council, PEI

Lynn James, for her outstanding contribution over the past six years as CDHA Speaker

On Sunday, June 21st the CDHA Annual Conference came to an end with Past President Sue MacIntosh's address reflecting on the Association's achievements over recent years and the new and exciting initiatives CDHA has identified to move the profession forward.



1. CDHA's Executive Council members and Board of Directors.

2. Sandra VanWart, Manager, Member Services presents Dawn-Rai Kitt with the CDHA Student Scholarship Award.

3. President Judy Clarke presents Charlene Hamill, Registrar of SDHA with a plaque in recognition of self-regulation

4. President Judy Clarke presents the CDHA Presidential Pin to Donna Bowes.

Following the Past President's remarks, award presentations were made during the luncheon. These included the 1998 Colgate/CDHA Community Health Grant presented by Tessie Lamadrid Black, of Colgate Oral Pharmaceuticals to Sherry Saunderson, (Cobble Hill, BC) for her Community Health Initiative proposal.

Ms. Sandra VanWart, Manager, Member Services presented the CDHA Student Scholarship Award to Dawn-Rai Kitt, (Regina, SK) for her project submission.

President Judy Clarke presented Charlene Hamill, Registrar of the Saskatchewan Dental Hygienists Association with a plaque in recognition of the 1998 establishment of self-regulation for the dental hygiene profession.

The final presentation of the luncheon was dedicated to the installation of the new 1998/1999 CDHA President. Ms. Donna Bowes of Mississauga, Ontario was handed the CDHA Presidential Pin by retiring President Judy Clarke.

It may look like another electric toothbrush, until you turn it on.



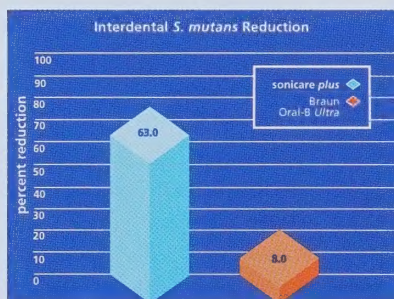
At 31,000 gentle brush strokes per minute, **sonicare**® cleans between teeth¹ and below the gumline.² Our high-speed brushing creates sonic waves that travel through toothpaste and saliva, creating mild cavitation that enables **sonicare** to clean places the bristles themselves don't reach. And it is more gentle than a soft manual brush.³



sonicare creates sonic waves that go where no ordinary brush has gone before.

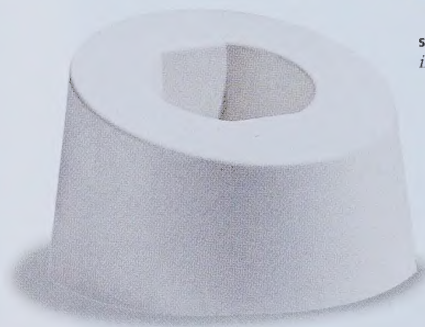
In fact, **sonicare** removes plaque bacteria 3mm beyond the reach of the bristles.^{TM4} Like interproximal *S. mutans*, the leading cause of dental caries.^{5,6} It even removes a leading

cause of periodontal disease, *P. gingivalis*, below the gumline.⁷ And it removes both better than the Braun Oral-B Plaque Remover.^{6,7}



sonicare plus™ is superior to Braun Oral-B Ultra™ in reducing interdental cariogenic microflora.⁶

Call **1 800 363-2876** for clinical studies and more information. Ask about our special 30-day, free trial offer for dental professionals. Better yet, ask your peers. 98 out of 100 who have tried **sonicare** recommend it.⁸ And in our business, word of mouth is everything.



sonicare®
the **sonic** toothbrush

1. Tritten CB, Armitage GC. *J Clin Periodontol.* 1996;23:641-648. (University of California, SF). 2. Ho HP, Niederman R. *J Clin Dent.* 1997;8:15-19. (Harvard University). 3. Imfeld, T, Senner B. *J Dental Res.* 1997. In Press. (University of Zürich). 4. Stanford CM, Srikantha R, Wu CD. *J Clin Dent.* 1997;8:10-14. (University of Iowa). 5. Brambilla E, Felloni A, Cagetti M, Gagliani M, Strohmer L. *J Dent Res.* 1997. In Press. (University of Milan). 6. Brambilla E, Felloni A, Cagetti M, Strohmer L. *J Dent Res.* 1998. In Press. (University of Milan). 7. Robinson PJ, Maddalozzo D, Simonson L, Breslin S. *J Clin Dent.* 1997;8:4-9. In Press. (Northwestern University). 8. Based on 14,783 survey respondents in the U.S.A.

Lynda McKeown New Vice-President for CDHA



**Lynda McKeown,
RDH, HBA, MA**

At the 35th Annual Session in Charlottetown, PEI, the CDHA Board of Directors elected Lynda McKeown to the position of Vice-President. The Vice-President's role is an important role in the Association, serving as the training ground for future CDHA Presidents.

Lynda McKeown has extensive experience in many aspects of dental hygiene. Since graduating from the dental hygiene program at the Faculty of Dentistry, University of Toronto in 1964, she has taught and worked in both private dental practices and the public health arenas. Presently she provides oral health maintenance for long-term care residents and promotes health through educational presentations in the community. She combines many of her skills and her administrative experience in her work in the Thunder Bay location of The Fresh Breath Clinic, where clients receive treatment for chronic bad breath problems. Academically she has received her HBA (Philosophy), has a specialization in occupational ethics, and an MA (Sociology). Lynda has presented research papers nationally and internationally. In 1993

she received the Northern Health Human Resource Research Unit/Ontario Ministry of Health Studentship, the CDHA Research Fellowship, and a Warner Lambert Award through the ODHA in 1990. These financial awards assisted her full-time studies.

She received an ODHA Life Membership for service to the profession and in 1992 was one of four members honoured for co-founding the Thunder Bay Dental Hygienists' Society. She served on the council and, as one of the two dental hygienists elected as observers, on many committees at the Royal College of Dental Surgeons of Ontario between 1981 and 1993. In recognition of her contribution to self-regulation of dental hygienists in Ontario, the government appointed her to the dental hygiene Transitional Council. She served as the first Chair and President of the College of Dental Hygienists of Ontario.

Lynda balances her dental hygiene activities with other community activities. She enjoys reading, walking, and relaxing at her cottage.

Lynda is looking forward to applying her experience and knowledge to the Executive of the CDHA.

165

Listerine and CDHA Partnership Initiatives

Representatives from Warner Lambert Consumer HealthCare, manufacturers of Listerine Oral Antiseptic, and CDHA held an Advisory Board get-together on Friday, June 19th during the CDHA's 9th Annual Conference.

Taking part in the evening were Graham Robertson and Meagan Mitchell Category Associates of Warner Lambert and Chris Sherwood of Catalyst North Inc., a dental/medical communications agency. Representing the CDHA were Past President Sue MacIntosh, Executive Director, Carol Matheson Worobey, Manager of Communications Services, Angela J. Whelan, President, Donna Bowes, Marilyn Goulding, Patricia Noble and Corporate Relations representative Wanda Staples.

The evening commence with a review of the ideas and initiatives the Warner Lambert/Advisory Board have undertaken throughout the past year. As the evening progressed, participants identified areas

of future collaboration and growth for dental hygiene in Canada. On-going advisory board meetings will continue to take place.



From left to right (front row) Carol Matheson Worobey, Meagan Mitchell, (middle row) Sue MacIntosh, Angela J. Whelan, Marilyn Goulding, Patricia Noble, Wanda Staples, (third row) Donna Bowes, Chris Sherwood and Graham Robertson.



From left to right: Frances Gordon, Martha Stein and Judiann Stern

just for laughs...

What happens when dental hygienists start networking? Just ask Marsha Stein who recently met Frances Gordon and Judiann Stern at the 27th Annual Convention of the Ordre des dentistes du Québec (ODQ) which took place at the Montreal Convention Centre between May 23rd and May 27th, 1998. None of them knew each other before being introduced at the convention but here's a coincidence... they all three chose dental hygiene as a career, and they were all born on the same day, April 7th of the same year.

New Provincial Presidents — Coast to Coast

Over the summer, many provincial associations held their Annual General Meetings to elect Provincial Presidents. New Provincial Presidents elected to date are:

Sharon Besette —
Ontario Dental Hygienists Association (ODHA)
Stacy Mackie —
Alberta Dental Hygienists Association (ADHA)
Lanna Palsson —
Manitoba Dental Hygienists Association (MDHA)
Monica Simpson —
Prince Edward Island Dental Hygienists Association (PEIDHA)
Jocelyn Burke —
Nova Scotia Dental Hygienists Association (NSDHA)



Provincial Presidents attending CDHA conference in PEI

166

Canadian Delegates Attend IFDH Conference

Canadian Dental Hygienists from coast to coast recently attended the International Federation of Dental Hygienists' 14th International Symposium on Dental Hygiene in Florence, Italy, July 2-4, 1998. The focus was "The Dental Hygienist: A Needed Reality".

Get ready now and get set to go to the 15th International Symposium on Dental Hygiene in Sydney, Australia, August 2-5, 2001. The focus "The Dental Team Colleagues in Dental Health".

For more information E-mail: reply@icmsaust.com.au



Canadian delegates who attended the IFDH Conference in Italy.

Diane Skene Receives the Marilyn Pawluk Mabey Award



Diane Skene, RDH, RDA, BA

At the Annual General Meeting of the Alberta Dental Hygienists Association (ADHA), June 14, 1998, Diane Skene was presented with the Marilyn Pawluk Mabey Award.

This award was established in 1978 to honour and perpetuate the memory of Marilyn Pawluk Mabey, a member who enhanced the profession of dental hygiene in

Alberta by modelling clinical competence, instructional excellence and professional development.

Previous recipients of this award are Anita Eastwood, Jan Ritchie and Margaret Wilson.

Ms. Diane Skene earned her diploma in dental hygiene in 1986 at the University of Alberta. She has been employed for the past 12 years in the area of both general and perio practice. She is currently enrolled at the University of Calgary under the Masters in Education program, and has a specialized interest in adult community and higher education.

During CDHA's 35th Annual Board meeting Diane was presented with a recognition plaque in appreciation of her four-year commitment as a member of the CDHA Board of Directors and member of the Quality Practice Council.

Diane and her husband Reg live happily with their four-legged family, a dog, Tucker, and two cats, Jasper and Muffin.

Premier[®] Glitter[™] gives your patients clean, sparkling smiles.



Four out of five hygienists prefer **Premier Glitter** prophylaxis paste to clean teeth quickly and achieve the ultimate level of luster.¹ You will, too! It tastes great, there's no splatter, and best of all, Glitter rinses off easily!

Four Great Flavors with Fluoride!

 Cherry
  Strawberry
  Mint
  Bubble gum

Available in four grits: X-coarse, Coarse, Medium, Fine

\$20

Bath & Body Works

Offer!

Get a \$20.00 Gift Certificate offer to Bath & Body Works*!

For a limited time, every double package contains 400 cups and \$20.00 in coupons redeemable for Gift Certificates at Bath & BodyWorks.

® Premier is a registered trademark of Premier Dental Products Company. 1. In-house survey.



**BUY ONE,
GET ONE FREE!**

For a limited time, receive a bonus double package containing 400 cups or two 12 oz. jars. **Satisfaction guaranteed!**



IN CANADA . . .
you will receive \$20 U.S. Dollars
in lieu of Gift Certificate!

*Offer expires 12/31/98.



PREMIER DENTAL (CANADA)
(610) 239-6000 • 888-PREM USA
www.premusa.com

1998 CDHA/Colgate Community Health Grant

In 1995, Colgate Oral Pharmaceuticals expressed an interest in becoming more involved with the CDHA and its efforts to promote community health programs. The result was that Colgate agreed to be the sole sponsor of the CDHA/Colgate Community Health Initiative Grant. In the following year, 1996, the first grant was awarded.

In 1998 the CDHA, in conjunction with Colgate Oral Pharmaceuticals' partnership initiatives continue as the CDHA's 9th Annual Conference Luncheon welcomed Colgate representative Tessie Lamadrid Black, RDH, BS, Dental Hygiene Relations Manager, to present the 1998 CDHA/Colgate Community Health Grant to Sherry Saunderson.



Tessie Lamadrid Black of Colgate Pharmaceuticals presents the 1998 CDHA/Colgate Community Health Grant to Sherry Saunderson

Ms. Sherry Saunderson, RDH, is currently an oral health consultant on contract to develop preventive dental programs in Cobble Hill, BC. As recipient, Sherry's project will focus on the aboriginal populations in B.C. who are known to be a high-risk group for dental disease. Native children living in the Cowichan Valley, V.I. experience an exceedingly high rate of early childhood caries, related primarily to nursing bottle habits. Ms. Saunderson's main objective will be to develop and provide a Baby Bottle Tooth Decay Program for the Children and Community served by the Tsewultun Health

Centre of the Cowichan Tribes. "The BBTD Project is a necessary and timely program if any success is to be achieved" says Sherry.

Among her goals are the realization of a 50 percent reduction in BBTD amongst Cowichan children over a period of five years, and to see the creation of a multidisciplinary, comprehensive bottle caries program that is institutionalized within the Tsewultun Health Centre.

CDHA/COLGATE COMMUNITY HEALTH GRANT

OBJECTIVE

To support Canadian dental hygienists engaged in community health project that promote oral health and wellness.

GENERAL DESCRIPTION

A grant of \$3,000 will be awarded annually to a Canadian dental hygienist who presents a new community health initiative that is not associated with any other dental health delivery program. Preference will be given to community projects that are relevant to the discipline of dental hygiene and the mission and objectives of the CDHA. National Dental Hygiene Campaign projects/initiatives are not acceptable for this grant.

ELIGIBILITY

Grant applicants must be academically qualified Canadian dental hygienists who are Active or CDHA Life members in good standing.

APPLICATION DEADLINE

The deadline for applications is **Friday, December 18, 1998.**

DURATION

The recipient of the grant will be notified by **Friday, March 5, 1999** and will have one year to implement the initiative. At the end of the first year of the initiative, a written report is to be submitted to CDHA. The CDHA reserves the right to be the first to publish

all works generated as a result of the initiative. A successful applicant may re-apply for a second consecutive year. Second applications will be considered on the same basis as any first applications. No more than two awards will be offered for any one initiative.

For more information or to receive an application form please contact:

The Canadian Dental Hygienists Association
96 Centrepoin Drive
Nepean, ON K2G 6B1

Telephone: (613) 224-5515
Fax: (613) 224-7283

Colgate
Oral Pharmaceuticals

Membership Drive

The Canadian Dental Hygienists Association: The Benefits of Membership

169

Mission Statement

"The Canadian Dental Hygienists Association, as the collective voice of dental hygiene in Canada, advances the profession and contributes to the health of the public."

There has never been a more important time to be a member of The Canadian Dental Hygienists Association. For nearly 50 years, dental hygienists have been providing service to millions of Canadians, who trust them to keep their teeth and gums healthy for life. In the evolving climate of health care and oral health in this country, supporting one another is vital to the future of our profession.

Why should you be a member?

- You are a professional and deserve the support of a national association that understands your issues and offers benefits to help you advance in your career.
- You want to see your profession grow and remain protected. The CDHA has been instrumental in helping dental hygienists in certain provinces become self-regulated; dental hygienists now have the choice as to where they provide their services. For all of us, this means more control over the future of our profession.
- You want information on the most current happenings in the field of oral health care. The CDHA's journal, *Probe*, provides members with the most up-to-date developments in dental hygiene.
- You want the security of knowing you are protected when you provide your services to the public. The CDHA has negotiated several excellent insurance plans for members.
- You have concerns about your profession. The CDHA listens to these concerns and becomes your voice to government, the public and your professional associates.
- You want to be part of the growing network of dental hygiene professionals. Through the association, new innovative initiatives and special events, the CDHA is constantly developing and improving communications tools and resources to help members keep in touch.

What are some of the specific benefits available to members?

Members of the CDHA enjoy continued education, information and support through the following:

- **Professional resources** such as *Probe*, a bi-monthly journal issued only to members, the CDHA Member Resource Centre, as well as workshops and research materials;
- **Financial incentives** such as CDHA's Dental Hygienist Student Scholarship, Graduate Student Research Award, CDHA Endowment Fund and CDHA/Colgate Community Health Grant;
- **Access** to the CDHA through a toll-free line, web site and e-mail;
- **Participation** in annual professional conferences, national communications campaigns and other special events such as National Dental Hygiene Week;
- **Negotiated insurance coverage** and services such as malpractice (liability) insurance, commercial liability, long-term disability, life and home/auto insurance, as well as a Retirement and Savings coverage all part of The Canadian Dental Hygienists Insurance Plan (CDHIP); and
- **Liaison** with other organizations such as Allied Health Professionals, American Dental Hygienists' Association, International Federation of Dental Hygienists, Health Action Lobby, Canadian Public Health Association and Commission on Dental Accreditation.

If you are currently a member, we encourage you to renew your membership and if you're thinking about joining, the time is now. There is strength in numbers. Help us celebrate with a countdown to 50 years of service to Canadians and become part of a growing organization dedicated to launching the dental hygiene profession into the 21st century.

Membership Categories

(A) ACTIVE MEMBER

May be granted to any person legally eligible to practice dental hygiene in any of the provinces of Canada, is a member in good standing of any one of the constituent associations, has paid dues in full for the current membership year, and supports the mission of the Association. Only Active members may serve as Directors, Committee chairpersons, representatives or appointive officers of the Association.

(P) SUPPORT MEMBER*

May be granted to an individual who is not a dental hygienist or to a dental hygienist not holding an Active license/registration, has paid dues in full for the current membership year, and supports the mission of the Association.

(J) STUDENT MEMBER*

May be granted to a student enrolled in an entry level dental hygiene program, or a dental hygienist not currently employed as a dental hygienist, who is enrolled full time in a post-diploma program, who has paid dues in full for the current membership year and who supports the mission of the Association.

(S) ASSOCIATE MEMBER*

May be granted to a dental hygienist who resides in the North West Territories, Yukon Territories or outside of Canada, who has paid dues in full for the current membership year and who supports the mission of the Association.

(L) LIFE MEMBER*

May be granted to an Active member of the Association for fifteen (15) consecutive years and is involved in dental hygiene at the national level in an official capacity for a minimum of ten (10) years, who has made an outstanding contribution to dental hygiene and this Association, has been recommended in accordance with the by-laws of the Association, and has been approved by the Board of Directors.

(H) HONORARY MEMBER*

May be conferred upon an individual who is not a dental hygienist but who has contributed substantially to the profession of dental hygiene and who has been approved by the Board of Directors.

** Liability (Malpractice) Insurance covering two 1 million dollar claims per year and includes coverage for legal council in a judicial setting, is a benefit of Active membership. All other membership categories must pay a \$10 fee for this insurance.*

1998/1999 (CDHA/Provincial) Fee Schedule

(DEMONSTRATES BREAKDOWN OF NATIONAL AND PROVINCIAL FEES)

PROVINCE ASSOCIATE	ACTIVE (CDHA + Prov.)	SUPPORT (CDHA + Prov.)	STUDENT (CDHA + Prov.)	ASSOCIATE Provincial fee
AB	*	*	(\$25 + \$0.00 = \$25)	\$80.00
BC	(\$115 + \$115 = \$230)	(\$65 + \$25 = \$90)	(\$25 + \$10 = \$35)	\$25.00
MB	(\$115 + \$45 = \$160)	(\$65 + \$25 = \$90)	(\$25 + \$5 = \$30)	\$20.00
NB	(\$115 + \$45 = \$160)	(\$65 + \$10 = \$75)	N/A	\$10.00
NF	(\$115 + \$65 = \$180)	(\$65 + \$5 = \$70)	N/A	\$5.00
NS	(\$115 + \$50 + \$50 levy = \$215)	(\$65 + \$0.00 = \$65)	(\$25 + \$0.00 = \$25)	\$30.00
ON	(\$115 + \$181.90 = \$296.90)**	(\$65 + \$96.30 = \$161.30)**	(\$25 + \$42.80 = \$67.80)**	\$42.80**
PE	(\$115 + \$20 = \$135)	(\$65 + \$0.00 = \$65)	N/A	\$20.00
SK	*	*	*	\$20.00
QC	(\$115 + \$0.00 = \$115)	(\$65 + \$0.00 = \$65)	(\$25 + \$0.00 = \$25)	N/A
***The CDHA portion of all fees listed above are as follows:				
CDHA	\$115.00	\$65.00	\$25.00	\$75.00

* AB and SK membership fees administered conjointly with provincial licensing authorities and CDHA.

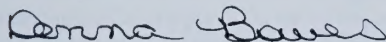
** Includes GST

*** (NOTE: CDHA had not increased their fees for the past 5 years.)

Invitation to Join or Renew for 1998/1999

"Collectively, all the benefits of CDHA membership work to enhance and strengthen our profession, leading to new and exciting opportunities to provide service to the public. In this evolving health care climate, it is more important than ever that our profession be prepared to explore new partnerships and opportunities. Your membership will ensure that the CDHA can continue to be proactive in advancing the dental hygiene profession and enabling access to dental hygiene services and preventive oral health care across Canada."

Sincerely,



Donna Bowes, CDHA President

How to complete the New Membership Application

The following is a step-by-step explanation to help you complete the new application form and calculate your membership fees. You will find the application in the polybag with this issue of *Probe*.

- 1** Peel off the top of the address label and adhere it to the Application Form where indicated.
If an address change is in order, then peel off the top label from the journal, adhere it to the appropriate area on the application and mark an X through it. Answer "YES there is a name/address change" and provide the correct information on the reverse side of the application.
- 2** If you are simply paying for an Active membership in your province of residence and do not have a change of address, place an X beside Active, indicate the Active fee for your province, the method of payment and proceed to Step 4.
- 3** If you would like to become an Active member in more than one province or would like to continue supporting an additional province through an Associate membership, read the following a) and b) sections.

A) ADDITIONAL PROVINCIAL ACTIVE MEMBERSHIP:

Are you licensed in more than one province? Four provinces (AB, SK, NF, NS) require that you hold Active membership in those provinces as a prerequisite to licensure. For example, those Active and licensed in NF and also requesting licensure in NS would be required to pay Active membership for CDHA, NDHA and NSDHA, for a total of \$280.00.

Provincial Active fees for mandatory provinces

- AB = (Included with license fee —
for further details contact CDHA)
- NF = \$65.00
- SK = (Included with license fee —
for further details contact CDHA)
- NS = \$100.00 (\$50.00 + \$50.00 levy)

B) ADDITIONAL PROVINCIAL ASSOCIATE MEMBERSHIP:

Is there another province in Canada where you have gone to school, worked, or to which you plan to move? Would you like to maintain a link with a province and continue to receive its mailings? You may wish to become an Associate Member of the additional province(s) by:

- First, becoming a member in your province of residence; and
- Second, referring to the Provincial Associate fees below and choosing the additional province(s) on the application under Additional Associate. Then, adding the additional fees to your membership fee (i.e., Active NSDHA/CDHA and Associate/MDHA \$215.00 + \$20.00 = \$235.00).

Provincial Associate Fees

Alberta	\$80.00
British Columbia	\$25.00
Manitoba	\$20.00
New Brunswick	\$10.00
Newfoundland	\$ 5.00
Nova Scotia	\$30.00
Ontario	\$42.80 (\$40.00 + GST)
Prince Edward Island	\$20.00
Saskatchewan	\$20.00
Québec	N/A

- 4** Indicate the type of practice setting where you work.
- 5** Indicate whether or not you are self-employed (contract arrangement rather than employee).
- 6** Indicate whether or not you require additional disciplinary coverage.

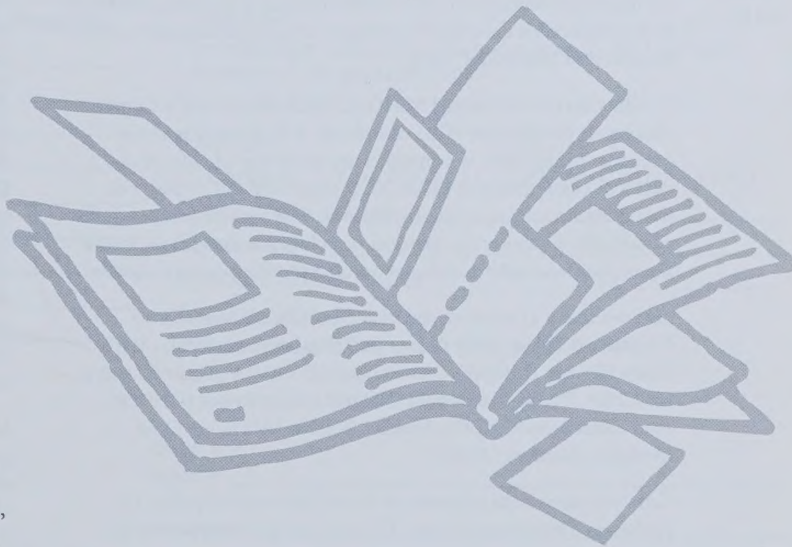
The Disciplinary/Sexual Abuse Defence Costs Rider is available at a cost of \$10.00. The CDHA strongly recommends that no dental hygienist appear in front of a Disciplinary Board without legal council. For this purpose, we have made available up to \$7,000.00 worth of legal counsel for the minimal fee of \$10.00.

- 7** Enclose your payment with the application in the return envelope provided, or make your payment by:

Telephone: 1 (800) 267-5235

Fax: 1 (613) 224-7283

E-mail: svw@cdha.ca



NATIONAL DENTAL HYGIENE CAMPAIGN

CDHA Campaign Report

As many of you know, The Canadian Dental Hygienists Association (CDHA) has been working on a very exciting new national communications strategy that is going to help launch dental hygiene into the 21st century.

Over the past few months the CDHA, in partnership with the National Planning Committee, with representatives from coast to coast [in alphabetical order]: Ginny Cathcart (BCDHA), Judy Clarke (CDHA), Josephine Juchli (ADHA), Elaine Kinchen (MDHA), Diane Kozachuk (ODHA), Dianne Landry (NDHCB), Donna MacDonald (NSDHA), Suzie Prince (OHDQ), Fran Richardson (CDHO), Angela J. Whelan (CDHA) and Carol Matheson Worobey (CDHA) and Delta Media, our public relations firm, have been working collaboratively, undertaking an extensive review of our past communications efforts, participating in a strategic planning workshop and holding focus groups with the Canadian public, to come up with media and creative strategies that are going to help us achieve some very important goals.

With this campaign, we will be raising widespread public awareness about dental hygiene as a *profession* — responsible for practising and educating our clients about preventive oral health care. We also want to lay the foundation for the establishment of a new regulatory environment which removes barriers to practising and increases public access to our services. Most significantly, we want to celebrate the important work we do and begin together to countdown to 50 years of service to Canadians!

The national communications campaign will kick off during National Dental Hygiene Week this year from October 18 to 24. You will see full-page ads in the November issues of *Canadian Living* and *Coup de pouce* (available in early October) and the October issues of *Homemaker's* and *Madame au foyer* (available at the end of September). Each of you will receive a National Dental Hygiene Week poster (inserted in this issue of *Probe*) which we encourage you to display throughout the Week. You will hear public service announcements on the radio and read articles about dental hygiene and preventive oral health in community newspapers from coast to coast. You will also have the opportunity to participate. We encourage you to take pride in your profession and order your National Dental Hygiene Week Kit (see page 173), which consists of an embroidered golf shirt, informative handout cards for your clients and additional posters for your place of work.

Funding for the following ad campaign was brought to you by our members in partnership with the *British Columbia Dental Hygienists Association* (BCDHA), the *College of Dental Hygienists of British Columbia* (CDHBC), the *College of Dental Hygienists of Ontario* (CDHO), *L'Ordre des hygiénistes dentaires du Québec* (OHDQ), the *National Dental Hygiene Certification Board* (NDHCB) and the *Saskatchewan Dental Hygienists Association* (SDHA).

Don't miss out on the fun! Help us promote the dental hygiene profession and support the campaign. Participate in National Dental Hygiene Week and be on the lookout for more exciting news about the CDHA's national communications initiatives.

172

Rapport sur la campagne de l'ACHD

Comme bon nombre d'entre vous le savez déjà, l'Association canadienne des hygiénistes dentaires (ACHD) élabore une nouvelle stratégie nationale de communication qui aidera la profession d'hygiéniste dentaire à entrer de plain-pied dans le XXI^e siècle.

Au cours des derniers mois, l'ACHD, en collaboration avec le Comité national de planification et des consultants de la firme de relations publiques Média Delta, ont entrepris une étude approfondie de nos efforts de communication passés. Nous avons organisé un atelier de planification stratégique. Nous avons aussi interrogé des groupes de discussion afin d'élaborer des stratégies de publicité et de relations médiatiques pour nous aider à atteindre des objectifs d'importance capitale.

Les participants à l'atelier de planification stratégique sont : Ginny Cathcart (BCDHA), Judy Clarke (ACHD), Josephine Juchli (ADHA), Elaine Kinchen (MDHA), Diane Kozachuk (ODHA), Dianne Landry (BNCHD), Donna MacDonald (NSDHA), Suzie Prince (OHDQ), Fran Richardson (OHDO), Angela J. Whelan (ACHD) et Carol Matheson Worobey (ACHD).

Cette campagne nous permettra de sensibiliser le grand public à la profession d'hygiéniste dentaire, à l'accent que nous mettons sur les soins dentaires préventifs et à notre engagement à l'éducation du public. Nous voulons également établir les fondations d'un nouveau régime réglementaire qui éliminerait les obstacles qui entravent notre pratique

et rehausserait l'accès du public à nos services. Mais surtout, nous voulons célébrer l'importance de notre travail et commencer ensemble le compte à rebours vers 50 ans de service à la population canadienne.

La campagne nationale de communication débutera avec le lancement de la Semaine nationale de l'hygiène dentaire, du 18 au 24 octobre 1998. Vous verrez des annonces publicitaires pleine page dans les éditions de novembre de *Coup de pouce* et de *Canadian Living* (qui seront en kiosque au début octobre) et *Madame au foyer* et de *Homemaker's* (disponible en kiosque fin septembre). De plus, chacun et chacune d'entre vous trouvera une affiche de la Semaine nationale de l'hygiène dentaire insérée dans la présente édition de *Probe*, que nous vous encourageons à exposer fièrement durant cette semaine. Vous entendrez également des annonces d'intérêt public à la radio et vous pourrez lire des articles sur l'hygiène dentaire et les soins préventifs dans les journaux locaux.

La Semaine nationale de l'hygiène dentaire, c'est aussi une occasion de participer et d'exprimer notre fierté envers notre profession. Nous vous encourageons à remplir le formulaire qui se trouve à la page 176 pour commander des articles promotionnels que vous pourrez présenter et distribuer au public durant la Semaine nationale de l'hygiène dentaire tels que : des chemises de golf, des cartes de renseignements pour vos patients et des affiches supplémentaires pour votre clinique.

Rapport sur la campagne de l'ACHD ... suite à la page 180



National Dental Hygiene Week
Semaine nationale de l'hygiène dentaire

Take pride in your profession

Participate in National Dental Hygiene Week

The Canadian Dental Hygienists Association is launching its National Communications Campaign during National Dental Hygiene Week, which takes place **October 18 to 24, 1998**. This exciting campaign will feature full-page ads in *Canadian Living*, *Coup de pousse*, *Homemaker's* and *Madame au foyer*, posters for

your place of work, golf shirts and hand-out cards for you to give to your clients. One free poster is provided in this issue of *PROBE*, but additional copies are available. All of this will be supported by a media relations campaign on radio stations and in community newspapers across the country.

**Don't miss out on the fun...
promote your profession to the Canadian public.
Order your National Dental Hygiene Week Kit today!**

We encourage you to order these great promotional items designed to help you make the most of National Dental Hygiene Week and to promote your profession.

Share the importance of your work with millions of Canadians while celebrating all you do to keep Canada's smiles healthy and beautiful!

Yes, I want to take part in National Dental Hygiene Week!

PLEASE RUSH ME:

- **NDHW Golf Shirt** ___ Small ___ Medium ___ Large ___ XL
Quantity _____ @ Price: \$21 each = \$ _____
- **NDHW Hand-out Cards** (packs of 100, bilingual)
Quantity _____ Packs @ Price: \$19 each = \$ _____
- **Additional National Dental Hygiene Week Posters**
Quantity _____ @ Price: \$1 each = \$ _____

SUBTOTAL \$ _____

NON-MEMBERS — please multiply subtotal by two \$ _____

TOTAL COST OF ITEMS \$ _____

SHIPPING — enter correct amount from table at right \$ _____

SUBTOTAL — add Total Cost of Items + Shipping \$ _____

7% GST (N° R106845233) \$ _____

8% PST — Ontario residents only (on Total Cost of Items line only) \$ _____

TOTAL ENCLOSED: \$ _____

SHIPPING AND HANDLING

Shipping charges are as follows:

Under \$25	\$5
\$25.01 - \$50	\$8
\$50.01 - \$100	\$12
Over \$100	\$15

For orders over \$250, call our toll-free number at 1-800-267-5235, extension 21, for applicable charges.

Paid by:

☐ Cheque ☐ Credit Card (☐ MasterCard ☐ Visa)

Cardholder name _____

Signature _____

Credit Card number ____/____/____/____

Expiry date __/____

Please include payment with your order.

Complete, clip and return to:

The Canadian Dental Hygienists Association
96 Centrepoin Drive, Nepean, Ontario K2G 6B1
Facsimile: (613) 224-7283



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION
L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Ship to:

Name _____

Address _____

City _____ **Province** ____ **Postal Code** _____

Telephone _____ **Facsimile** _____



Semaine nationale de l'hygiène dentaire
National Dental Hygiene Week

Soyons fiers de notre profession

Participez à la Semaine nationale de l'hygiène dentaire

L'Association canadienne des hygiénistes dentaires lancera sa campagne nationale de communication au cours de la Semaine nationale de l'hygiène dentaire, qui se déroulera du **18 au 24 octobre 1998**. Cette campagne palpitante sera véhiculée par des annonces en pleine page dans les magazines *Coup de pouce*, *Canadian Living*, *Madame au foyer* et *Homemaker's*, des affiches pour les cliniques, des chemises de golf et des cartes de

renseignements à distribuer à vos patients. Vous pouvez également vous procurer des exemplaires supplémentaires de l'affiche incluse dans la présente édition de *PROBE*. De plus, une campagne nationale de relations médiatiques visera à appuyer la Semaine nationale de l'hygiène dentaire en mettant en relief nos messages clés dans les journaux communautaires et à la radio.

Soyez de la partie...

Faites la promotion de notre profession auprès du public canadien.

Commandez votre trousse de la Semaine nationale de l'hygiène dentaire dès aujourd'hui!

Nous vous encourageons à commander ces superbes articles publicitaires qui vous aideront à promouvoir la Semaine nationale de l'hygiène dentaire ainsi que

notre profession. Célébrons ensemble notre contribution aux sourires magnifiques de nos patients.

Oui, je veux participer à la Semaine nationale de l'hygiène dentaire!

Faites-moi vite parvenir les articles suivants :

- **Chemises de golf** — petit — moyen — grand — très grand
quantité _____ à 21 \$ = _____ \$
- **Cartons de renseignements** (en paquet de 100, bilingues)
nombre de paquets _____ à 19 \$ / unité = _____ \$
- **Affiches publicitaires**
quantité _____ à 1 \$ / unité = _____ \$

SOUS-TOTAL _____ \$

NON-MEMBRES — veuillez multiplier le sous-total par deux _____ \$

COÛT TOTAL DES ARTICLES _____ \$

EXPÉDITION — inscrivez le bon montant du tableau de droite _____ \$

SOUS-TOTAL — Ajoutez le coût total des articles et les frais d'expédition _____ \$

TPS de 7% (n° R106845233) _____ \$

TVP de 8% — pour les résidents de l'Ontario seulement (sur le coût total des articles seulement) _____ \$

TOTAL CI-JOINT _____ \$

FRAIS D'EXPÉDITION ET DE MANUTENTION

Les frais d'expédition sont les suivants :

Moins de 25 \$	5 \$
25,01 \$ - 50 \$	8 \$
50,01 \$ - 100 \$	12 \$
Plus de 100 \$	15 \$

Pour les commandes de plus de 250 \$, veuillez composer le 1-800-267-5235, poste 21, pour connaître les frais applicables.

Méthode de paiement :

☐ Chèque ☐ Carte de crédit (☐ MasterCard ☐ Visa)

Titulaire de la carte _____

Signature _____

N° de carte ____/____/____/____

Date d'exp. __/__/__

Veuillez joindre votre paiement à la commande.

Compléter ce formulaire et le faire parvenir à :

L'Association canadienne des hygiénistes dentaires
96, promenade CentrepoinTE, Nepean (Ontario) K2G 6B1
Télécopieur : (613) 224-7283



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION

L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIREs

Livrer le matériel à l'adresse suivante :

Nom _____

Adresse _____

Ville _____ Province _____ Code postal _____

Téléphone _____ Télécopieur _____

SELF-ASSESSMENT TEST



Questions 11 to 15 appeared in the July/August 1998 vol. 32 no. 4 issue of Probe. For more information contact:
National Dental Hygiene Certification Board (NDHCB) P.O. Box 58006, Orléans, Ontario K1C 7H4
Telephone: (613) 837-2727 Fax: (613) 837-6971

175

16. Which one of the following factors is a cause of dark radiographs?

1. Films used were beyond the expiration date.
2. Developing solutions were too cold.
3. Developing time was not long enough.
4. Exposure time was too long.

17. The dental hygienist has been implementing sessions to improve the oral health of a group of 19 to 21-year-old models as part of their educational program at a modeling agency. The first session discussed the relationship between oral health and appearance. Which of the following actions should the dental hygienist take to evaluate the effectiveness of the previous session?

1. Start with a practice session related to brushing.
2. Test their knowledge with a written quiz.
3. Summarize the important points from the previous session.
4. Ask the models how many times they flossed during the last week.

18. Mr. Oli Smith, 70 years old, presents with an ill-fitting maxillary denture. He is experiencing increased difficulty chewing. Mr. Smith may be more prone to which one of the following conditions?

1. Lichen planus
2. Candidiasis
3. Pemphigus
4. Herpetic ulcerations

19. During the process of a chart audit review, the dental hygienist recognizes an omission in documentation. What should the dental hygienist do?

1. Leave the chart as it is.
2. Amend the chart after the last entry.
3. Insert the omission at the point of occurrence.
4. Add a separate page explaining the omission.

20. Which one of the following statements is the best example of a client-centered, measurable goal?

1. The client will reduce by half the number of bleeding sites when flossing.
2. By the next appointment with the dental hygienist, the client reports less bleeding when flossing.
3. The client will floss more often.
4. By the next appointment with the dental hygienist, no bleeding will be noted.

16. Quel facteur, parmi les suivants, est responsable de radiographies trop foncées?

1. Les films ont été utilisés après la date d'expiration.
2. Les solutions de développement étaient trop froides.
3. La durée de développement n'était pas assez longue.
4. La durée d'exposition était trop longue.

17. L'hygiéniste dentaire anime des séances pour améliorer la santé buccale d'un groupe de mannequins âgés de 19 à 21 ans dans le cadre d'un programme de formation dans une agence de mannequins. Lors de la première séance, on a discuté de la relation entre la santé buccale et l'apparence. Quelle action, parmi les suivantes, l'hygiéniste dentaire devrait-elle prendre pour évaluer l'efficacité de la séance précédente?

1. Commencer par une séance pratique sur le brossage.
2. Vérifier leurs connaissances au moyen d'un jeu-questionnaire écrit.
3. Résumer les points importants de la séance précédente.
4. Demander aux mannequins le nombre de fois qu'ils ont utilisé la soie dentaire au cours de la dernière semaine.

18. M. Oli Smith, 70 ans, a une prothèse dentaire supérieure mal ajustée. Il a de plus en plus de difficulté à mastiquer. M. Smith pourrait être plus sujet à quelle problème de santé parmi les suivantes?

1. Lichen plan
2. Candidose
3. Pemphigus
4. Ulcérations herpétiques

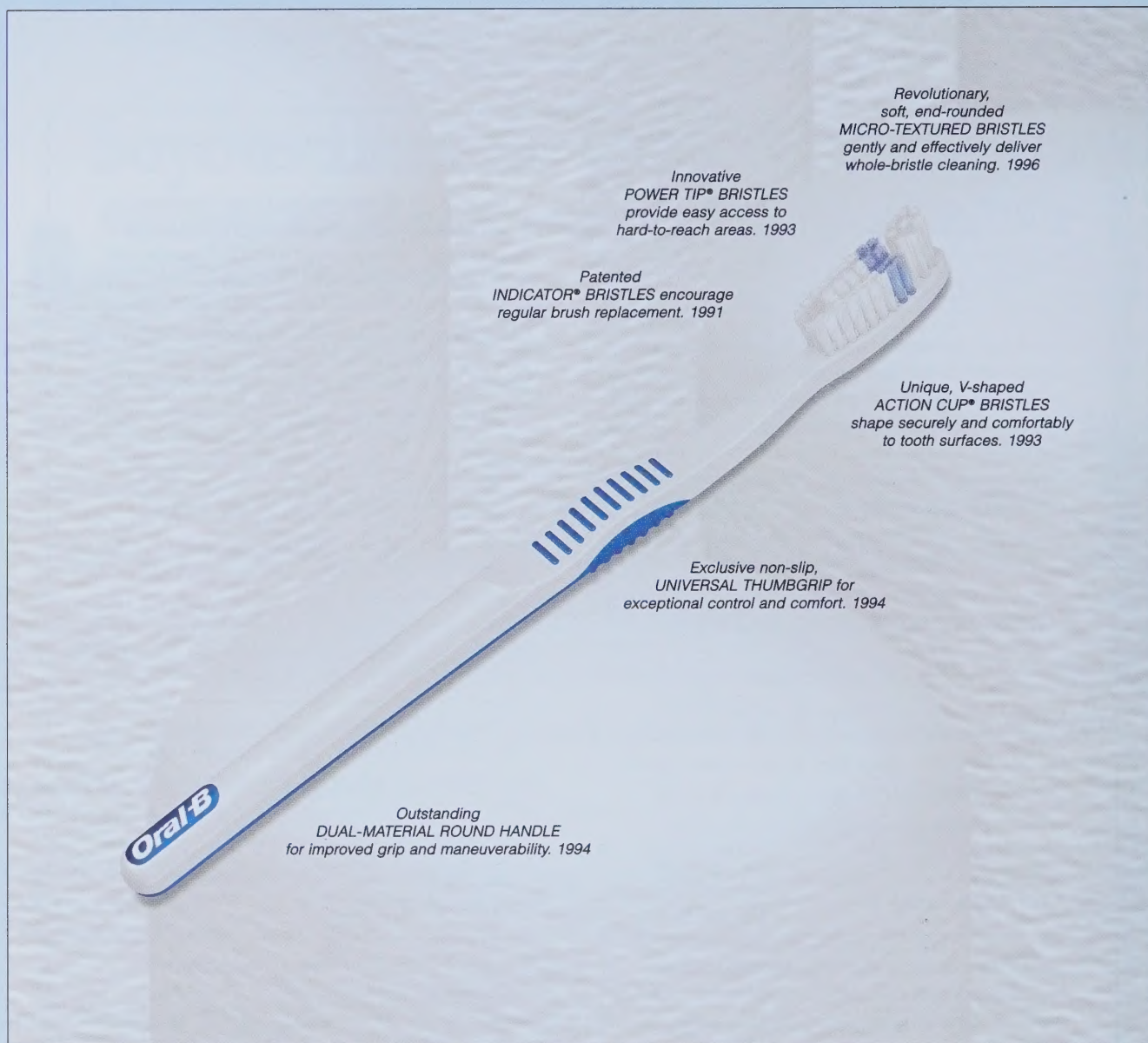
19. Lors d'une procédure de vérification des dossiers, l'hygiéniste dentaire remarque une omission dans la documentation. Que devrait faire l'hygiéniste dentaire?

1. Laisser le dossier tel quel.
2. Modifier le dossier après la dernière inscription.
3. Insérer l'omission à l'endroit approprié.
4. Ajouter une page séparée expliquant l'omission.

20. Quel énoncé, parmi les suivants, est le meilleur exemple d'un but mesurable axé sur le client?

1. Le client réduira de moitié le nombre de points de saignement lorsqu'il utilise la soie dentaire.
2. D'ici au prochain rendez-vous avec l'hygiéniste dentaire, le client signale moins de saignement au passage de la soie dentaire.
3. Le client utilisera la soie dentaire plus souvent.
4. D'ici au prochain rendez-vous avec l'hygiéniste dentaire, aucun saignement ne sera présent.

Presenting the results of our steadfast refusal to quit while we're ahead.



Nearly half a century ago, we revolutionized plaque removal with the first soft-bristle toothbrush, the Oral-B®. And over the years we've developed and refined our plaque remover, improving its performance with enhancements from our patented Indicator® stripe to our unique micro-textured bristles. All of which makes the Oral-B® ADVANTAGE® our most technologically

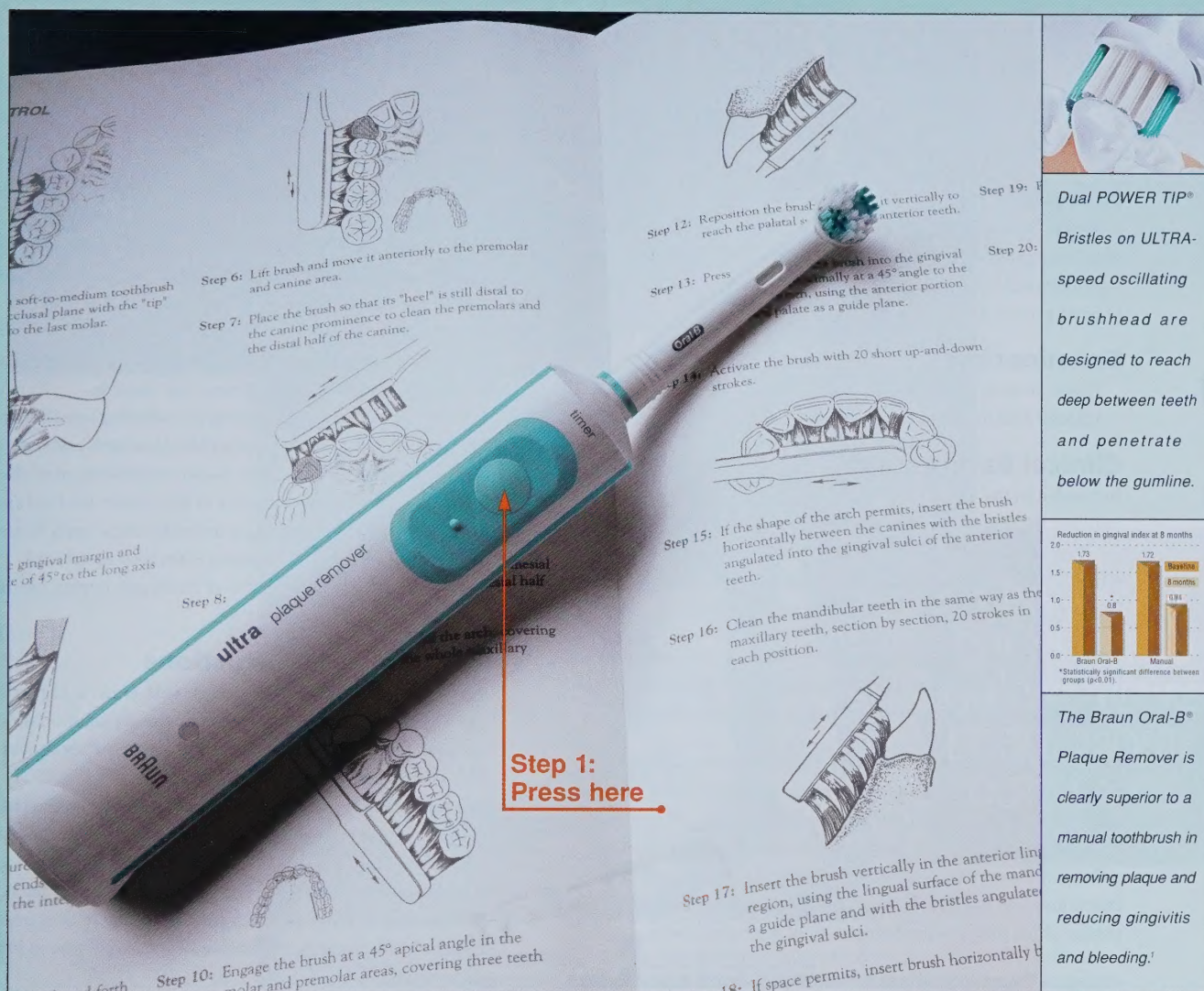
advanced manual plaque remover ever.

Maybe that's why we're the brand more dentists and hygienists use themselves.

For free samples and a clinical summary, please write Oral-B Laboratories, 110 Matheson Blvd. West, Suite 210, Mississauga, Ontario L5R 3T5.



Why should patients rely on a manual when superior results can be automatic?



Step 1: Press here

Step 6: Lift brush and move it anteriorly to the premolar and canine area.

Step 7: Place the brush so that its "heel" is still distal to the canine prominence to clean the premolars and the distal half of the canine.

Step 8: Engage the brush at a 45° apical angle in the premolar and premolar areas, covering three teeth.

Step 10: Engage the brush at a 45° apical angle in the premolar and premolar areas, covering three teeth.

Step 12: Reposition the brush so that its "heel" is still distal to the canine prominence to clean the premolars and the distal half of the canine.

Step 13: Press the brush into the gingival sulci, using the anterior portion of the brush as a guide plane.

Step 14: Activate the brush with 20 short up-and-down strokes.

Step 15: If the shape of the arch permits, insert the brush horizontally between the canines with the bristles angulated into the gingival sulci of the anterior teeth.

Step 16: Clean the mandibular teeth in the same way as the maxillary teeth, section by section, 20 strokes in each position.

Step 17: Insert the brush vertically in the anterior lingual region, using the lingual surface of the mandible as a guide plane and with the bristles angulated into the gingival sulci.

Step 18: If space permits, insert brush horizontally between the canines with the bristles angulated into the gingival sulci of the anterior teeth.

Step 19: Reposition the brush so that its "heel" is still distal to the canine prominence to clean the premolars and the distal half of the canine.

Step 20: Press the brush into the gingival sulci, using the anterior portion of the brush as a guide plane.

Dual POWER TIP®

Bristles on ULTRA-speed oscillating brushhead are designed to reach deep between teeth and penetrate below the gumline.

Reduction in gingival index at 8 months

Group	8 months
Braun Oral-B	1.73
Manual	0.84

*Statistically significant difference between groups (p<0.01)

The Braun Oral-B® Plaque Remover is clearly superior to a manual toothbrush in removing plaque and reducing gingivitis and bleeding.¹

Try as they may, most patients will never master the manual. Just ask the three-out-of-four adults who have gingivitis. Fortunately, there's the Braun Oral-B® ULTRA Plaque Remover. It's easy to use, yet remarkably effective. In fact, over 8,000 patient weeks of clinical research has proven Braun Oral-B Plaque Removers to be significantly better at removing plaque and stain and reducing gingivitis than manual brushing.²

And ULTRA is just as gentle, thanks to its soft, end-rounded bristles. Perhaps that's why Braun Oral-B is the world's best-selling brand of power-assisted plaque removers.³ And why it's preferred by patients 2:1 over sonicare.⁴ For more information, or to place an order, contact your authorized Oral-B dental distributor. Or call us today at 1 800 765-2959. And take the first step towards superior results.



BRAUN

Oral-B®

Leading Edge Treatment Using Emdogain™

By Leanne Carlson-Mann, Dip. D.T., Dip.D.H., Contributing Editor

178

History

A 56-year old male client presents with generalized adult periodontitis with horizontal and vertical bone loss. The client is a smoker (approximately 1/2 package per day) but otherwise seems to be in good general health.

Examination

Initial probing pocket depth — 10 mm.

Clinical attachment loss — 12 mm.

Clinical Background

In Sweden in the 1980s a crucial breakthrough was made in understanding the development of tooth-supporting tissues. The discovery revealed the existence of a native complex of enamel matrix proteins which aid the formation of acellular cementum, providing the foundation of all parts of a healthy periodontium.

And so Emdogain™ was discovered. It is used as an adjunct to normal periodontal flap surgery and has been successful in treating infrabony defects without furcations resulting from loss of tooth support.

Emdogain™ is reabsorbed naturally during the normal healing process. It leaves only a residue of enamel matrix proteins on the debrided root surface and this natural and insoluble surface layer encourages the growth of the population of cementum-forming cells from the surrounding tissues. This newly created surface also functions as an interface between the tooth and the surrounding tissues which prevents the overgrowth of epithelial tissues.

Emdogain™ promotes the regrowth of all periodontal tissues: acellular cementum; functional periodontal ligament; and alveolar bone.

Successful Regenerative Outcomes

1. Patient variables
2. Bacterial etiology
3. Local factors
4. Smoking
5. Stress
6. Systemic disease
7. Compliance

Objectives

1. Probing depth reduction
2. Clinical attachment level gain
3. Bone fill of the osseous defect
4. Regain new bone, cementum and periodontal ligament.

Procedure

1. Identify remaining periodontal pocket with an associated infrabony defect following initial treatment (initial treatment was oral hygiene instruction and removal of soft bacterial deposits and residual calculus).

2. Anesthetize the selected area for surgery by block and/or infiltration.
3. Make incision with full thickness flaps and attention to preserving as much of the gingival connective tissue in the flap as possible. Irrigate area with saline solution to maintain viability of periodontal cells.
4. Reflect soft tissues to expose periodontal defect.
5. Perform final preparation of root surfaces, removing only the granulation tissue adhering to the alveolar bone and osseous defects. Remove subgingival plaque and calculus.
6. Perform root surface conditioning by removing smear layer using citric or ortho-phosphoric acid for 15 seconds and rinsing thoroughly with saline solution. Avoid contamination of the cleansed root surfaces with saliva or blood after the final rinse.
7. Prepare Emdogain™ according to instructions and apply Emdogain™ gel on exposed root surfaces starting at the most apical level.
8. Suture the incision(s). Overflow of Emdogain during suturing is to be expected.

Post-operative Instructions

1. Clients should be instructed to rinse with either a 12 percent chlorhexidine solution or hydrogen peroxide solution until between three and six weeks after the surgery. They should also be instructed to:
 - a) Avoid hard and crispy foods (e.g. apples, raw carrots, fried foods).
 - b) Avoid touching the area of the surgery with fingers or tongue.
 - c) Avoid smoking for the six-week period following the surgery.
2. Antibiotics may also be used if deemed appropriate by the dentist.
3. Sutures may be removed when clinical healing of flaps and the root/soft tissue interface are stable (which could take as long as three weeks).
4. The client should be instructed not to brush in the area where the surgery using Emdogain™ has been performed until six weeks after the operation. However professional cleaning (i.e. polishing by a dental hygienist) may be performed as needed.
5. Six weeks after the surgery the client should be instructed again about appropriate tooth-cleaning measures including interproximal cleaning. Recommendations for oral hygiene should be based on the need to maintain extended wound stability.

Maintenance

1. Appointments every two months for six months
2. Appointments every three months for perio-supportive care for plaque control, scaling and root planing

Goal of Maintenance

1. Lack of gingival inflammation
2. Reduction of probing depths
3. Gain of clinical attachments
4. Maintenance of bone height

Leading Edge Treatment Using Emdogain™...continued on page 193

THEIR VISIT
LASTS ABOUT
AN HOUR.

WHAT THEY
TAKE AWAY
LASTS A
LIFETIME.



UNE VISITE
QUI NE PREND
QU'UNE HEURE
ET QUI PROFITE
TOUTE LA VIE.

Dental hygienists are registered, regulated professionals committed to prevention and education. Millions of Canadians trust their dental hygienist to offer a range of specialized procedures, backed by comprehensive education and clinical training, to keep teeth and gums healthy for life.

Canada's dental hygienists

*Prevention Professionals
for Nearly Half a Century*

Les hygiénistes dentaires sont des professionnels diplômés et réglementés qui jouent un rôle déterminant de prévention et de sensibilisation en matière de santé bucco-dentaire. Voilà pourquoi des millions de personnes au pays leur font confiance. Les hygiénistes dentaires prodiguent des soins à caractère préventif et offrent une gamme de services spécialisés. Leur formation de pointe et leur expertise vous permettent de conserver la santé de vos dents et de vos gencives toute votre vie.

Les hygiénistes dentaires du Canada

*Les professionnels de la prévention
depuis près d'un demi-siècle*



OCTOBER 18 TO 24, 1998

National Dental Hygiene Week
Semaine nationale de l'hygiène dentaire

DU 18 AU 24 OCTOBRE 1998

THE CANADIAN DENTAL HYGIENISTS ASSOCIATION / L'ASSOCIATION CANADIENNE DES HYGIÉNISTES DENTAIRES

This campaign is made possible by the contributions of provincial dental hygiene organizations across Canada. / Cette campagne vous a été présentée grâce à la contribution financière des organisations provinciales en hygiène dentaire au Canada.

www.cdha.ca

PROBING THE NET

By Karen Wolf, Dip. D.H.

With summer vacations over our schedules now have at least a chance of becoming ordered. I hope the weather remained cooperative and the memories full of fun and friends, as you all took that well deserved break from the ordinary.

Our first Internet address was provided to me by one of the speakers at CDHA's Annual Conference in Prince Edward Island. At this site you will learn about fluoride, an agenda of presentations and a summary of results from the "Canadian Consensus Conference on the Appropriate Use of Fluoride Supplements for the Prevention of Dental Caries in Children". In here you can read about the 1993 Canadian Dental Association's (CDA) recommendations for supplemental fluoride therapies as well as about the evidence put forward to prove that fluoridated toothpaste and fluoridated water are the most effective "mechanisms of action of fluoride to prevent dental decay". At this site we also read of the conclusion that these topical approaches to preventing dental caries in children may be supplemented daily with lozenges, chewable tablets and fluoride drops when it is determined that children are not receiving the appropriate levels of fluoride per day (0.25 mg/day with fluoridated toothpaste or 0.5 mg/day without fluoridated toothpaste). For more details go and take a look at the site at: <http://www.interlog.com/~hardyl>

One cannot talk about fluoride use by children without considering the opposite end of the age spectrum's requirement for fluoride therapy. Our senior citizens often experience a decrease in salivary flow due to a variety of medications (anti-depressants, anti-hypertensives, antihistamines and anti-cholingergics) and specific disorders which create clinical symptoms ranging from dryness during meal time, difficulty swallowing, increase in dental decay, and an increased susceptibility to candidal infections. "Saliva is the main protective factor for all the exposed tissues of the upper gastrointestinal tract, ie: mouth, pharynx and oesophagus. Salivary proteins help to keep your teeth hard, to repair wounds or ulcers in the soft mucosal tissues, to kill bacteria, certain fungi and some viruses, and to allow the formation of a food bolus and permit its proper swallowing. Saliva also facilitates one's ability to taste and to speak." For another article on saliva entitled "Saliva: Your Spitting Image" you can also click the *News Index* button at the bottom of the web page. Learn about "Aging and Salivary Gland Flow" at: <http://www.nidr.nih.gov/news/aging.htm>

Since we are on the topic of saliva there are two interesting abstracts I discovered on MEDLINE. The address is <http://www.nlm.nih.gov/> Once online, click on the *Free MEDLINE* bubble, then click on *Internet Grateful Med* and *Proceed*. Then you must set the limits of your search:

Subject: *Saliva and Fluoride*
Language: *English*
Publication Types: *All*
Study Groups: *Human*
Gender: *All*
Age Groups: *65+*
Journals: *Dental*
Yr. Range: *1995-1998*

Click on the *Perform Search* box and you will come up with about nine abstracts. I especially recommend "Effects of Chlorhexidine gel treatment on the prevalence of mutans streptococci and lactobacilli in patients with impaired salivary secretion rate" and "Effects of Compliance with fluoride gel applications on caries and caries risk in patients after radiation therapy for head and neck cancers."

Finally, I would be delighted to hear from anyone who has found some other interesting web sites regarding oral conditions for the elderly as I hope to devote an entire article to web sources for those dental hygienists working primarily with Canada's seniors. Keep surfing!!!



Karen (Malloy) Wolf graduated from Dalhousie University's School of Dental Hygiene in 1984. She has practiced in general private practice for the past 14 years and continues to do so four days a week. She taught Radiology at the Nova Scotia Institute of Technology on a part-time basis for two years. She has delivered oral health presentations to local daycare centres, schools and Brownie groups. She is married with three children.

RAPPORT SUR LA CAMPAGNE DE L'ACHD (suite de la page 172)

Cette campagne publicitaire vous a été présentée grâce à la contribution financière de nos membres, en partenariat avec le *British Columbia Dental Hygienists Association* (BCDHA), le *College of Dental Hygienists of British Columbia* (CDHBC), l'*Ordre des hygiénistes dentaires de l'Ontario* (OHDO), l'*Ordre des hygiénistes dentaires du Québec* (OHDQ), le *Bureau national de la certification en hygiène dentaire* (BNCHD) et le *Saskatchewan Dental Hygienists Association* (SDHA).

Soyez de la partie! Participez à la Semaine nationale de l'hygiène dentaire et aidez-nous à promouvoir notre profession. Soyez à l'écoute d'autres nouvelles qui vous parviendront au sujet de la campagne nationale de communication de l'Association.

Campagne d'adhésion

L'Association canadienne des hygiénistes dentaires : Les avantages reliés au statut de membre

181

Énoncé de mission

« L'Association canadienne des hygiénistes dentaires, en tant que porte-parole officiel de l'hygiène dentaire au Canada, contribue au progrès de la profession et à la santé du public. »

Jamais il ne fut moment plus important pour être membre de l'Association canadienne des hygiénistes dentaires. Pendant près de 50 ans, les hygiénistes dentaires ont dispensé leurs services à des millions de personnes, qui leur font confiance pour conserver la santé de leurs dents et de leurs gencives pour toute une vie. Dans le climat évolutif des soins de santé et de la santé bucco-dentaire au Canada, il est vital pour l'avenir de notre profession que nous nous prêtions un appui mutuel.

Raisons pour être membre

- Vous êtes une professionnelle ou un professionnel et vous méritez le soutien d'une association nationale qui comprend vos problèmes et qui vous offre des avantages pour vous aider à avancer dans votre carrière.
- Vous voulez voir votre profession croître et rester protégée. L'ACHD a contribué à aider aux hygiénistes dentaires dans certaines provinces à obtenir un statut de profession auto-réglementés; les hygiénistes dentaires ont maintenant le choix de l'endroit où ils dispensent leurs services. Pour nous tous, cela veut dire un plus grand contrôle sur l'avenir de notre profession.
- Vous désirez de l'information sur les événements les plus récents dans le domaine des soins de santé bucco-dentaire. Le journal de l'ACHD, *Probe*, informe les membres des développements les plus récents en matière d'hygiène dentaire.
- Vous désirez la sécurité de savoir que vous êtes protégé lorsque vous dispensez vos services au public. L'ACHD a négocié pour ses membres plusieurs régimes d'assurance excellents.
- Vous entretenez des inquiétudes à l'égard de votre profession. L'ACHD est à l'écoute de ces préoccupations et se fait votre porte-parole auprès des gouvernements, du public et de vos associés professionnels.
- Vous désirez faire partie du réseau croissant des professionnels de l'hygiène dentaire. Par l'association, de nouvelles initiatives et des événements spéciaux, l'ACHD est constamment affairée à développer et à améliorer des outils de communication et des ressources visant à aider ses membres à garder contact.

Quelques-uns des avantages spécifiques disponibles aux membres

Les membres de l'ACHD bénéficient de l'éducation permanente, de l'information et de soutien grâce aux instruments suivants :

- des ressources professionnelles comme *Probe*, une revue dont seuls les membres reçoivent, le Centre de ressource pour les membres de l'ACHD, ainsi que des ateliers et de la documentation de recherche ;
- des incitations financières comme la Bourse d'étude d'hygiéniste dentaire de l'ACHD, la Bourse de recherche d'étudiant diplômé, le Fond de dotation de l'ACHD et la Subvention de santé communautaire ACHD/Colgate ;
- un accès à l'ACHD grâce à une ligne téléphonique sans frais, à un site Web et au courriel ;
- une participation à des conférences professionnelles annuelles, à des campagnes nationales de communication et à d'autres événements spéciaux, comme la Semaine nationale de l'hygiène dentaire ;
- une couverture d'assurance négociée et des services tels que l'assurance (responsabilité) contre les fautes professionnelles, l'assurance-responsabilité commerciale, invalidité à long terme, l'assurance-vie, l'assurance-maison et l'assurance-automobile, ainsi qu'une couverture de retraite et d'épargne, qui font tous partie du Régime d'assurance des hygiénistes dentaires du Canada (RAHDC) ; et
- une liaison avec d'autres organismes comme les Professionnels paramédicaux, l'American Dental Hygienists' Association, la Fédération internationale des hygiénistes dentaires, le Groupe d'intervention Action Santé, l'Association canadienne de santé publique et la Commission de l'agrément dentaire du Canada.

Si vous êtes présentement membre, nous vous invitons à renouveler votre adhésion et si vous songez à joindre nos rangs, maintenant c'est le temps de le faire. L'union fait la force. Aidez-nous à célébrer en faisant un compte à rebours vers nos 50 ans de service à la population canadienne, et adhérer à un organisme en croissance dont la mission est de lancer la profession de l'hygiène dentaire dans le XXI^e siècle.

Catégories de membres

(A) MEMBRE ACTIF

Cette catégorie peut être accordée à : toute personne légalement admissible à pratiquer l'hygiène dentaire dans l'une ou l'autre des provinces canadiennes, qui est membre en règle d'une des associations constituantes, qui a acquitté entièrement les frais de cotisation de l'année d'adhésion en cours, et qui appuie la mission de l'Association. Seuls les membres actifs peuvent être directeurs, présidents des comités, officiers représentatifs ou nommés de l'Association.

(P) MEMBRE DE SOUTIEN*

Cette catégorie peut être accordée à une personne qui : n'est pas hygiéniste dentaire ou qui est un hygiéniste dentaire ne possédant pas de permis ou d'enregistrement actif, qui a acquitté entièrement les frais de cotisation de l'année d'adhésion courante, et qui appuie la mission de l'Association.

(J) MEMBRE ÉTUDIANT*

Cette catégorie peut être accordée à un étudiant inscrit au niveau débutant d'un cours d'hygiène dentaire, ou à un hygiéniste dentaire qui n'est pas présentement employé en cette qualité, qui est inscrit à plein temps dans un programme d'études de niveau supérieur, qui a acquitté entièrement les frais de cotisation de l'année d'adhésion courante, et qui appuie la mission de l'Association.

(S) MEMBRE ASSOCIÉ*

Cette catégorie peut être accordée à un hygiéniste dentaire qui réside dans les Territoires du Nord-Ouest, les Territoires du Yukon, ou à l'extérieur du Canada, qui a acquitté entièrement les frais de cotisation de l'année d'adhésion courante, et qui appuie la mission de l'Association.

(L) MEMBRE À VIE*

Cette catégorie peut être accordée à un membre actif de l'Association pendant quinze (15) années consécutives et qui s'occupe d'hygiène dentaire au niveau national en qualité officielle depuis au moins dix (10) ans, qui est l'auteur d'une contribution exceptionnelle à l'hygiène dentaire et à cette Association, qui a fait l'objet d'une recommandation conformément aux règlements de l'Association, et qui a été approuvé par le Conseil d'administration.

(H) MEMBRE HONORAIRE*

Cette catégorie peut être conférée à une personne qui n'est pas hygiéniste dentaire, mais qui a contribué substantiellement à la profession d'hygiéniste dentaire et qui a été approuvée par le Conseil d'administration.

** L'assurance-responsabilité (contre les fautes professionnelles) est un avantage qui est destiné aux Membres actifs. Elle couvre des réclamations de deux fois un million de dollars par année et inclut une couverture pour les frais de conseiller juridique en milieu judiciaire. Toutes les autres catégories de membres doivent déboursier des frais de 10 \$ pour cette assurance.*

Tableau des cotisations 1998/1999 (ACHD/Provinciales)

(MONTRE LA RÉPARTITION DE LA COTISATION NATIONALE ET DE LA COTISATION PROVINCIALE)

PROVINCE ASSOCIÉE	ACTIF (ACHD + Prov.)	SOUTIEN (ACHD + Prov.)	ÉTUDIANT (ACHD + Prov.)	ASSOCIÉ Cotisations provinciales
AB	*	*	(25 \$ + 0,00 \$ = 25 \$)	80,00 \$
BC	(115 \$ + 115 \$ = 230 \$)	(65 \$ + 25 \$ = 90 \$)	(25 \$ + 10 \$ = 35 \$)	25,00 \$
MB	(115 \$ + 45 \$ = 160 \$)	(65 \$ + 25 \$ = 90 \$)	(25 \$ + 5 \$ = 30 \$)	20,00 \$
NB	(115 \$ + 45 \$ = 160 \$)	(65 \$ + 10 \$ = 75 \$)	S/O	10,00 \$
NF	(115 \$ + 65 \$ = 180 \$)	(65 \$ + 5 \$ = 70 \$)	S/O	5,00 \$
NS	(115 \$ + 50 \$ + 50 \$ redev. = 215 \$)	(65 \$ + 0,00 \$ = 65 \$)	(25 \$ + 0,00 \$ = 25 \$)	30,00 \$
ON	(115 \$ + 181,90 \$ = 296,90 \$)**	(65 \$ + 96,30 \$ = 161,30 \$)**	(25 \$ + 42,80 \$ = 67,80 \$)**	42,80 \$**
PE	(115 \$ + 20 \$ = 135 \$)	(65 \$ + 0,00 \$ = 65 \$)	S/O	20,00 \$
SK	*	*	*	20,00 \$
QC	(115 \$ + 0,00 \$ = 115 \$)	(65 \$ + 0,00 \$ = 65 \$)	(25 \$ + 0,00 \$ = 25 \$)	S/O
***La portion de l'ACHD de toutes les cotisations apparaissant ci-dessus se divise comme suit :				
ACHD	115,00 \$	65,00 \$	25,00 \$	75,00 \$

* AB & SK : les cotisations sont administrées conjointement par les autorités provinciales d'octroi des permis de pratique et l'ACHD

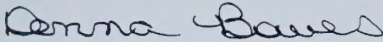
** TPS incl.

*** NOTE : L'ACHD n'a pas augmenté ses cotisations depuis 5 ans.

Invitation à adhérer ou renouveler pour 1998/1999

« Collectivement, tous les avantages découlant de l'adhésion comme membre de l'ACHD travaillent à l'amélioration et au renforcement de notre profession, ce qui conduit à des possibilités nouvelles et captivantes dans le domaine des services dispensés au public. Dans ce climat de soins de santé en évolution, il est plus important que jamais que notre profession soit prête à explorer de nouveaux partenariats et de nouvelles possibilités. Nos membres feront en sorte que l'ACHD puisse continuer à être proactive dans la promotion de la profession d'hygiéniste dentaire et en rendant accessibles aux quatre coins du Canada les services d'hygiène dentaire et les soins préventifs de santé bucco-dentaire. »

Avec mes salutations cordiales,



La présidente de l'ACHD
Donna Bowes

Comment remplir la nouvelle demande d'adhésion

Voici une explication étape par étape qui vous aide à remplir la nouvelle formule de demande et à calculer le montant de votre cotisation. Vous trouverez le formulaire dans l'enveloppe transparente incluse avec le présent numéro de *Probe*.

- 1 Détachez la partie supérieure de l'étiquette d'adresse et collez-la au formulaire de demande, à l'endroit indiqué. Si un changement d'adresse s'impose, détachez de la revue la partie supérieure de l'adresse, collez-la à l'endroit approprié du formulaire et biffez-la d'un grand X. Répondez OUI, il y a un changement de nom ou d'adresse et donnez les renseignements exacts à l'endos de la formule.
- 2 Si vous cotisez seulement pour un statut de Membre actif dans votre province de résidence, sans changement d'adresse, placez un X à côté du mot Actif, indiquez la cotisation pour cette catégorie, pour votre province, la méthode de paiement, et passez à l'Étape 4.
- 3 Si vous désirez devenir Membre actif dans plus d'une province, ou si vous aimeriez continuer à soutenir une autre province comme Membre associé, lisez les sections a) et b) qui suivent.

A) INSCRIPTION PROVINCIALE ADDITIONNELLE COMME MEMBRE ACTIF :

Avez-vous un permis d'exercice dans plus d'une province? Quatre provinces (AB, SK, NF, NS) exigent que vous soyez Membre actif dans ces provinces comme prérequis pour l'obtention d'un permis d'exercice. Par exemple, ceux qui sont actifs et qui possèdent un permis d'exercice à Terre-Neuve et qui désirent aussi un permis d'exercice en Nouvelle-Écosse seraient tenus de payer une cotisation de Membre actif pour l'ACHD, la NDHA et la NSDHA, soit un total de 280,00 \$.

Cotisations provinciales de Membre actif pour les provinces où l'adhésion est obligatoire :

- AB = (Incluse avec le coût du permis d'exercice — pour en savoir davantage, communiquez avec l'ACHD)
NF = 65,00 \$
SK = (Incluse avec le coût du permis d'exercice — pour en savoir davantage, communiquez avec l'ACHD)
NS = 100,00 \$ (50,00 \$ + 50,00 \$ redevance)

B) COTISATION PROVINCIALE SUPPLÉMENTAIRE DE MEMBRE ASSOCIÉ :

Y a-t-il une autre province canadienne où vous avez étudié, travaillé ou bien où vous prévoyez déménager? Aimeriez-vous conserver un lien avec une province et continuer à recevoir ses envois postaux? Vous pouvez désirer devenir Membre associé d'une province additionnelle en :

- 1) devenant membre dans votre province de résidence ; et
- 2) en vous reportant aux cotisations provinciales de Membre associé provincial ci-dessous et en choisissant la(les) province(s) additionnelle(s) sur la formule, sous la rubrique Associé additionnel. Additionnez ensuite les cotisations additionnelles pour obtenir votre cotisation de membre (par ex., Membre actif NSDHA/ACHD et Membre associé MDHA 215,00 \$ + 20,00 \$ = 235,00 \$).

COTISATIONS PROVINCIALES DE MEMBRE ASSOCIÉ

Alberta	80,00 \$
Saskatchewan	20,00 \$
Nouveau-Brunswick	10,00 \$
Colombie-Britannique	25,00 \$
I.-du-Prince-Édouard	20,00 \$
Ontario	42,80 \$ (40,00 \$ + TPS)
Manitoba	20,00 \$
Nouvelle-Écosse	30,00 \$
Terre-Neuve	5,00 \$
Québec	S/O

- 4 Indiquez le type de milieu de pratique dans lequel vous travaillez.
- 5 Indiquez si vous êtes travailleur autonome ou non (à contrat plutôt qu'employé).
- 6 Indiquez si oui ou non vous désirez une couverture additionnelle pour les cas de discipline.

Un avenant sur les coûts de défense en matière disciplinaire ou d'abus sexuel est disponible à un coût de 10,00 \$. L'ACHD recommande fortement qu'aucun hygiéniste dentaire ne compareisse devant un Comité de discipline sans conseiller juridique. À cette fin nous avons mis à la disposition des membres une valeur maximale de 7 000,00 \$ de services de conseillers juridiques pour le coût minimal de 10,00 \$.

- 7 Mettez votre paiement, avec la formule d'inscription, dans l'enveloppe-réponse ou faites votre paiement par :

téléphone : 1-800-267-5235

télécopieur : 1-613-224-7283

courriel : svw@cdha.ca



CDHA'S 9TH ANNUAL PROFESSIONAL CONFERENCE TAPE HIGHLIGHTS

9th Annual Professional Conference, June 19-21, 1998 — Charlottetown, PEI

Organizers made arrangements for audio recording of all major sessions. If you missed something or want to share some important topics with colleagues use this order form. Coverage is on 60 or 90 minute cassettes at \$10.00 each. Please note, some sessions require two tapes: "a" and "b".

0. "A Royal Welcome to PEI" Elizabeth Rolling Epperly, Ph.D., President, University of PEI
1. **ab** "Interdisciplinary Approaches to Teaching, Research and Service Through a Collaborative Model", with panel of Linda Kraemer, Kevin Lyons, Maxine Borowko and Sandy Cobban
2. **ab** "Women's Oral Health Issues", with Maria Perno McKenzie, RDH, BA, MS, President, ADHA
3. "Periodontal Case Presentations" with Marilyn Goulding, Dip. D.H., B.Sc, Fort Erie, Ontario
4. Community Connection AM: "Mobile Oral Care Services" with Barbara Heisterman; "Fresh Breath Clinic" with Anne Bosy; "Oral Health and New Adult Care Regulation in BC" with Lynn Guest; "Innovative Project for Seniors in LT Care" with Sandy Cobban and Carol Brown; "Meeting the Needs of Adults With a Developmental Disability" with Maxine Borowko.
5. Community Connection PM: "Working With Long Term Care" with Vicky Garland; "Dental Health in an Urban First Nations Community" with Sherry Saunderson; "Population Health and Early Childhood Caries" with Dianne Chalmers and Helen Pitman; "Health Foods at School" with Susan Sutherland
6. Free papers AM: "Work Values of Dental Hygiene Students, Dental Hygiene Educators and Clinical Dental Hygienists" with L. MacDonald and D. Curtis; "An Interdisciplinary Approach to Address Tobacco Issues in Elementary Through Peer Training" with B. Ziemer and B. Doucet; "An Oral Health Information Home Page" with L. MacDonald
7. Free Papers PM : "Psychosocial Impact of Oral Malodour" with A. Bosy
8. "Fluoride — The Good, The Bad and The Ugly" with Hardy Limeback, B.Sc.,DDs, Ph.D., Professor, University of Toronto
- 9 **ab** "The Dental Hygienist's Answers to Questions About Toothpaste, Mouthwash and Whiteners" with Hardy Limeback, B.Sc., DDs, Ph.D., Professor, University of Toronto
10. "Disinfectants — The Facts" with Annette Turgeon, R.T., B.Sc., Microbiology Department, Microbex Aseptics
11. "The Dental Hygienist — Multidisciplinary Team Player in Residential Care Facilities" with Barbara Heisterman, RDH, EDH, Vancouver Island, BC
13. **ab** "Women, Politics and Cancer — Who Is In Charge" with Maria Perno McKenzie, RDH, BA, MS, President, ADHA
14. "Networking and Coalition Building, a California Experience" with Arlene Glube, RDH, Dental Program Manager, San Bernardino County Department of Public Health
15. "The Business of Dental Hygiene" with Debbie L. Good, Chartered Accountant, Small Business Centre of Holland College
16. "Financial Planning for Women" with Therese Giroux, Retirement and Estate Services, Midland Walwyn
17. "Linking Private Practice with the Community" with Sandra Cobban, RDH and Joanne Clovis, Associate Professor of Dental Hygiene, Dalhousie University
18. "Nutrition: Womb to Tomb" with Helen Bishop MacDonald, Director of Nutrition, Dairy Farmers of Canada

_____ Complete Set (22 Tapes)... \$200

When ordering tapes to be sent by mail, add \$1.30 per tape for shipping and handling. All orders add 7% GST. Ontario residents also add 8% PST. Please check items required and send this form along with your payment to:

CDHA Conference Tape
8 Woodburn Drive, Ottawa, Ontario K1B 3A7
Tel: (613) 824-2583 Fax: (613) 824-2584



Name _____	Number of tapes _____	VISA _____
Address _____	Cost of tapes _____	Mastercard _____
City _____	Handling costs _____	Expiry date _____
Province _____	GST _____	Cheque (made payable to Conference Tape)
Postal code _____	PST (Ontario residents only) _____	
	Total _____	



CDHA NATIONAL Conference 1998

EDITORIAL

GOOD BYE FROM P.E.I., OR IS IT HELLO AGAIN?

By Audrey Newcombe, Dip. D.H., B.Sc., V.T.C., Conference '98 Co-Chair

Well it is very hard to believe but the conference has come and gone! We had 48 hours of learning and fun with lots of interaction between colleagues and friends. It reminds me very much of Christmas, lots of preparation and planning, and it is over in the blink of an eye. Also very much like Christmas, the memories of the conference will stay with me for a very long time, and give me a "warm, fuzzy" feeling when my mind turns back to the fun and learning of "Interdisciplinary Connections: Bridging the Gap".

Why am I writing this article after the conference? Well, it occurred to me as the post conference hubbub ensued (gather the invoices, get the bills paid, insure all donations are collected, ship materials back to their owners, write thank you notes, etc), that this conference did a lot for me on a personal as well as on professional level. Again you could ask, is that not what having a conference is all about? And yes, it is. But what makes me feel very happy are the unexpected benefits the conference gave me and the pleasure I got from all the other dental hygienists who worked so hard to make it happen.

When I first asked the PEIDHA back in 1994, if they would consider hosting a conference, my reasons were pretty basic.

1. Bring the world of dental hygiene to the smallest outpost of the CDHA in Canada and do a little bit to further my profession in my home province.
2. Show the world of dental hygiene, what a great group of dental hygienists we have here on P.E.I., and how wonderful our tiny province is.
3. Have an opportunity to visit with many old friends and colleagues and return some of the hospitality that has been shown to me on so many hygiene (and non-hygiene) trips across the country over the past 20 plus years (has it really been that long?)

Looking back on the conference, I can look at that list of reasons and say "did it", but there is still more to it than that. So many things happened that weren't on my list of reasons, but were very important — even more important — than my original reasons, that I must express my feelings about them. I am filled with a mixture of pride, thanks, warmth, gratitude and a deep sense of caring for the organization of dental hygiene and the individuals who make it such a special representation of a unique body of people.

What happened that was not on my list? Well, where should I start...

Unqualified support from colleagues

My conference co-chair Karen McGuigan (a remarkable person in her own right) and I received a lot of praise for all of our hard work to put the conference together. But, we did not do it alone: we did it with the absolute, total support of the organizing committee, the local association and the executive of CDHA. Maybe Karen and I made more phone calls, or had more meetings than others, but we still did it knowing that everyone was behind us one hundred percent, and ready and willing to do anything we asked of them. I don't recall ever getting a full question beyond "We need..." before I would hear someone say, "I'll do that".

The Executive and Central Office staff arrived on the scene when it was time to pack registration bags, allowing us to get a three-hour job finished in a record 45 minutes. We all had fun doing it and local association members got to know the Executive and Central Office staff better in the process.

Finding each individual's talents

Joanne, Mac, Karen, Maria, Monica, Florence, talented, creative people who were willing to donate their time and their minds to tasks to add a personal touch, or an extra detail. Joanne Clovis, whom I had always known was brilliant, put together such a dynamic program. Signe, who went over and above the call of duty to help us out while learning the ropes for next year.

People really do care a lot more than I give them credit for

I can't count the number of times people went out of their way to thank us, or compliment us, or share information with us during the two days. A number of people stopped me to bring hellos from former students or friends who could not make it to the conference. And then there were the people who decided to "take care" of the organizing committee making sure that we had some relaxation time and lowering our stress.

Belonging

I had not anticipated the camaraderie that would develop among the organizing committee. Within five hours of the conference officially ending, most of the members had called me to see when we could get together again.

So now, as the conference evaluations are reviewed and the dental hygienists of Canada have returned to their respective provinces, I feel very proud to be a part of this special profession, very glad to know the wonderful dental hygienists across the country that I call friends, and very happy to know that PEIDHA is proud of the work we did on their behalf. As the dental hygienists of P.E.I. absorb the realization of how our small contingent tackled a huge job with phenomenal success, I say "What do we tackle next, guys... self-regulation?"



CDHA NATIONAL Conference 1998

Review at a Glance...



The sound of bagpipes could be heard for CDHA's Opening Ceremonies as well as presentations of our history.

BIRTHPLACE OF CONFEDERATION SUCCESSFULLY UNITES DENTAL HYGIENISTS FROM ACROSS CANADA

Dental hygienists attending the CDHA's 9th Annual Professional Conference, "Bridging the Gap: Interdisciplinary Connections", found in Prince Edward Island not only a magnificent and picturesque province, but members who took a real pride in their profession. CDHA's Annual Conference delivered an inspirational and motivational program. In the tradition of the Association, the CDHA Board of Directors held its 35th Annual Meeting prior to the conference to set the course for 1998/1999.

The conference began with the sound of bagpipes echoing through the hall setting the tone for a memorable few days. After greetings from participating organizations and Prince Edward Island's Premier, Pat Binns, delegates found themselves before long immersed in a conference program that had something for everyone.

As always, the conference made sure all participants had very busy agendas. Sessions were offered in a wide range of settings, from lectures, panel discussions and table clinics, to free papers and commercial exhibits. Although the conference was mainly an opportunity to share knowledge and learning, there was plenty of time left to enjoy the hospitality and history of Canada's island province, and there was a lot of time to network and meet other dental hygienists during the President's Reception, Lobster Supper, and the finale at the 1998 CDHA Awards Banquet. The conference ended with spirited closing remarks from Maria Perno McKenzie, President of the American Dental Hygienists Association.

CDHA extends its sincere appreciation to everyone who attended the Annual Conference. Members keen participation throughout made the conference a great success once again. For those who were unable to attend this year, don't worry; instead start making plans to attend next year's conference in Winnipeg. We hope to see you all there.



PEI Premier Pat Binns welcomes delegates as he highlights the important role of dental hygienists in the provision and promotion of dental health



ADHA President Maria Perno
McKenzie with CDHA President
Judy Clarke



CDHA's Presidents from left to
right: Donna Bowes, President-
Elect, Judy Clarke, President and
Sue MacIntosh, Past President



CDHA's Central Office from left
to right: Angela J. Whelan, Sandra
VanWart, Monique Belleau Rock
and Carol Matheson Worobey

**CDHA GRATEFULLY
ACKNOWLEDGES THE SUPPORT
OF THE FOLLOWING
COMPANIES' SPONSORSHIP
IN THIS YEAR'S CONFERENCE:**

Ash Temple Ltd.
American Eagle
Aurum Ceramic Dental Laboratories Limited
Bolton Dental
Canadian Sugar Institute
Colgate Oral Pharmaceuticals
Dairy Farmers of Canada
F. Pigeon Limited
Heath Benefits Consulting Inc.
Holland College
Keith Health Care
L.J. Future Now Consulting Company
Merrill Lynch
(formerly Midland Walwyn Capital Inc.)
Oral-B Laboratories
Patterson Dental/Dentaire Canada Inc.
Prince Edward Island
Dental Hygienists Association
Sonicare/Optiva Corporation
Sunlife of Canada
Teledyne Water Pik Canada
Warner Lambert — Consumer Health Care

**CDHA WOULD ALSO LIKE TO
THANK ALL ITS COMMERCIAL
EXHIBITORS:**

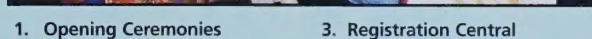
Ash Temple Limited
American Eagle
Block Drug Company
Colgate Oral Pharmaceuticals
Conair Consumer Products Inc.
Dairy Farmers of Canada
Dentsply Canada
Henry Schein Canada
Hu-Friedy Manufacturing
John O. Butler Company
L.J. Future Now Consulting Company
Merrill Lynch
(formerly Midland Walwyn Capital Inc.)
Oral B Laboratories
Pascal Dental/Young Dental
Patterson Dental Canada Inc.
Premier Dental (Canada)
Septodont of Canada Inc.
Sonicare/Optiva Corporation
Sunlife of Canada
Teledyne Water Pik Canada
Warner Lambert — Consumer Health Care



1. Opening Ceremonies



2. President's Reception



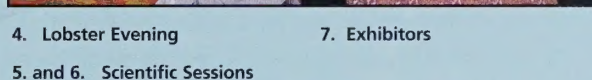
3. Registration Central



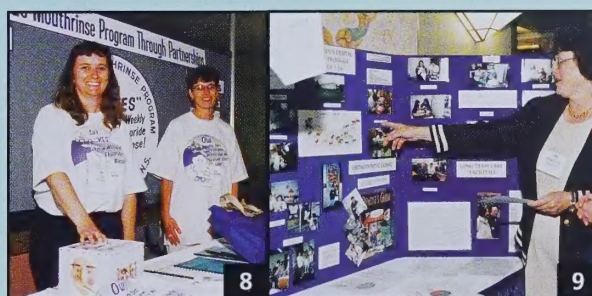
4. Lobster Evening



7. Exhibitors



5. and 6. Scientific Sessions



8. and 9. Table Clinics



10. Local Organizing Committee left to right: Maria McKenna (Social), Florence Wall (Treasurer), Monica Simpson (Board Liaison), Johanne McQuame (Scientific Liaison), Julie Muise (Registration), Audrey Newcombe (Co-chair), Karen McGuigan (Co-chair) and Joanne Clovis (Scientific Chair)



professional fitness
dental hygiene strides
into the 21st century

10th Annual CDHA Conference

The Lombard Hotel, Winnipeg, Manitoba
June 18-20, 1999

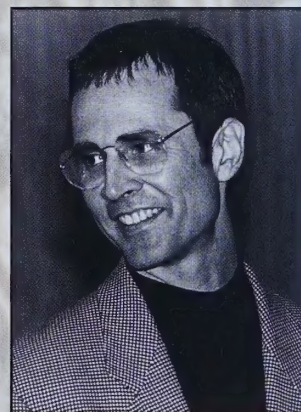
1999 It's Time to Come Back to Winnipeg!
MDHA hosted the first independently held CDHA conference in Winnipeg in 1990. For the 10th annual CDHA Conference, we are proud to present a unique and innovative program — challenging you to become professionally fit from a holistic perspective: mind, body and soul.

1999 It's Time to Boost Your Professional Fitness!
Get prepared for the next millennium by challenging yourself to a professional fitness workout! Come and stretch your mind, strengthen your body, and feed your soul. Spend time with your colleagues from across Canada while exploring:

- Exciting new visions for dental hygienists
- The changing Canadian workplace
- Achieving balance in your life
- The impact of dental hygiene practice on your health and safety
- Evidence-based periodontal diagnostics
- Dermatology dilemmas in dental hygiene
- The booming area of alternative medicine
- Being a heart smart person
- ...and much more.

1999 It's Time to Get Motivated!
We're excited to have Steve Donahue as Keynote Speaker and "Theme Weaver" for CDHA's 10th Annual Conference.

Well known as a powerful presenter, with an entertaining delivery he perfected performing stand-up comedy, Steve Donahue has addressed major conferences across North America and in the UK. He was named a Consummate Speaker of the year in 1994 sharing the award with only 25 speakers worldwide, Margaret Thatcher among them. In 1977 Steve's attempted overland north-south crossing of the Sahara Desert taught him that life is like the desert and to successfully complete our own inner journeys we need to care for body, mind and soul. With his drumming, juggling and hilarious and touching stories, Steve will captivate you and inspire you to cross your own deserts in life with more passion and joy. We'll tell you about Steve's exciting new program called Theme Weaver in our next update.



Steve Donahue, Keynote Speaker
for CDHA's 10th Annual Conference



Canada's #1 selling
toothbrush is now
within reach.[†]

Until now, the only place our brushes couldn't reach was your office.

That's changed. Starting in September, you'll be able to order REACH® toothbrushes from your dental distributor.

More than the toothbrush your patients prefer, REACH® offers a brush for every need, from adults who need help brushing hard-to-reach places to kids just getting started.

So why wait? Reach for the phone, and place your order today!



 **REACH®**

Johnson & Johnson

© Johnson & Johnson Inc. 1998. [†]Consumer purchases.



The power to
reach your goals
from the
world's largest
mutual fund company

Over 12 million investors like you share the strength of Fidelity Investments. In fact, we've been helping investors achieve their goals for over 50 years. As the recommended financial advisor to the **CDHA**, Merrill Lynch Canada Inc. draws upon Fidelity's global presence and full range of mutual funds to help meet all your investment needs. Call 1 800 563-6623 for details on how this partnership can benefit you.



Merrill Lynch



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION
L'ASSOCIATION CANADIENNE
DES HYGIENISTES DENTAIRES

Merrill Lynch Canada Inc. is a member of the Canadian Investor Protection Fund. Read the important information in a fund's prospectus before investing.



Fidelity



Investments®

Strength From The World's Largest Mutual Fund Company

Midland Walwyn and Merrill Lynch Combine to Create a Leading Financial Services Company in Canada

By now you may have heard that on August 26, 1998, Merrill Lynch & Co., Inc. finalized its merger with Midland Walwyn Capital Inc. The CDHA is extremely excited about this merger and the prospects it holds for our members across Canada. This combination will create an exceptional organization with the depth and resources to serve Canadian investors with an unmatched platform of high-quality products and services.

Merrill Lynch has enormous strengths. It is one of the world's leading financial management and advisory companies with offices in 45 countries and total client assets exceeding US\$1.4 trillion.

With this positive change, there is one thing that remains absolutely certain — as the recommended financial advisor to CDHA members, Merrill Lynch Canada is committed to serving you with the best financial advice possible. Their business is about building strong relationships with clients forged by the following principles: client



Merrill Lynch

focus, respect for the individual, teamwork, responsible citizenship, and integrity.

To find out more about how Merrill Lynch Canada Inc. and the CDHA Retirement & Savings Program, please contact your local Merrill Lynch Financial Consultant or call the CDHA Program Manager at: 1-800-563-6623.

We look forward to continuing to offer you this high-quality financial services program through Merrill Lynch Canada.

Merrill Lynch Canada Inc. is a member of the Canadian Investor Protection Fund.

191

FIRST CALL FOR ABSTRACTS

POSTERS/ORAL PAPERS/ TABLE CLINICS

The Canadian Dental Hygienists Association announces its 10th Annual Professional Conference,

Professional fitness:

Dental Hygiene Strides into the 21st Century

You are invited to make submission of abstracts of free papers, posters and table clinic presentations which are related to any aspect of dental hygiene practice. You must notify CDHA of your intent to submit an abstract by **December 4, 1998**. Include your name and the title of the abstract with your notification.

Abstracts of free papers, posters and table clinics must be submitted by **February 5, 1999**. Items will be selected on the basis of quality. Authors will be notified of acceptance or rejection of abstracts by **March 5, 1999**. All selected abstracts will be published in the Conference Program.

Please consider submitting completed papers by **April 17, 1999** for potential publication in *Probe*, CDHA's scientific journal.

For additional information contact:

CDHA Central Office
96 Centrepointhe Drive
Nepean, ON K2G 6B1
Telephone: (613) 224-5515

10th Annual CDHA Conference

The Lombard Hotel, Winnipeg, Manitoba
June 18-20, 1999



professional fitness
**dental hygiene strides
into the 21st century**



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION
L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Comfort, security & peace of mind

The Canadian Dental Hygienists Association (CDHA) understands the importance of comfort and security, both on and off the job.

The CDHA, in partnership with Canada Life Casualty, has developed a Home and Automobile Insurance Program with competitive rates and comprehensive benefits designed

to meet the unique needs of CDHA members.

The CDHA and Canada Life Casualty invite you to inquire about member discounts and options available to customize and enhance your policies. Whether you choose insurance for your home, automobile or both, you'll enjoy their commitment to quality.

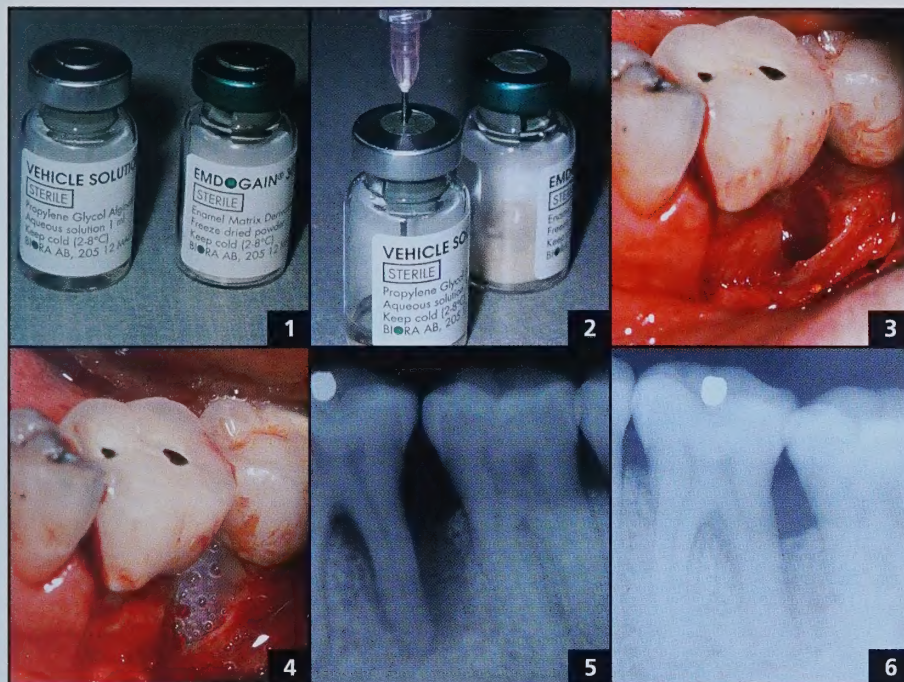
For more information,
please call:



CANADA LIFE
Casualty Insurance Company

1-888-688-0000

CDHIP - THE INSURANCE PLAN MADE FOR CANADIAN DENTAL HYGIENISTS



1. Emdogain™ vials prior to mixing.
2. Emdogain™ vial — extracting gel from vial.
3. Infrabony pocket before surgery with Emdogain™.
4. Emdogain™ gel placed in pocket.
5. Radiograph before treatment with Emdogain™.
6. Radiograph nine months after treatment with Emdogain™.

Results

Examination eight months after flap surgery with Emdogain™

- Probing pocket reduction 8 mm.
- Clinical attachment gain 7 mm.
- Radiographic bone gain 7 mm.

Conclusion

We have successfully reached a new plateau in periodontal therapy. Once again it is the responsibility of the dental hygienist to keep current with the new and ever-changing treatments available. It is also our responsibility to provide the correct post-operative instructions and maintenance to achieve the best outcome possible for our patients.

INFORMATION

Group Home and Automobile Insurance from Canada Life Casualty

CDHA members can take advantage of the many benefits our group insurance program offers.

HIGHLIGHTS OF OUR PROGRAM INCLUDE:

- Competitive rates and superior coverage
- Quick and simple over-the-phone insurance quotes
- Customized insurance policies so you only pay for the protection you need
- Monthly payments by automatic bank withdrawal at no additional cost
- "Exclusive Home Security" offer
- 24-hour emergency claims service
- Extended business hours:
Monday to Friday 8:00 a.m.–10:00 p.m.
Saturday 10:00 a.m.–5:00 p.m.

OUR DISCOUNTS FOR CDHA MEMBERS INCLUDE:

Home

- 10 percent for homeowners 55 and older
- 3 to 10 percent for homes with centrally monitored alarms (10 percent with Canada Life Casualty's "Exclusive Home Security" offer)
- 10 percent for new homes
- up to 15 percent for claims-free policies

Automobile

- 5 percent multi-vehicle discount
- preferred rates for drivers with approved driver training
- 60 percent for occasional male drivers under the age of 25 living away from home attending school

And another plus. Canada Life Casualty offers a 3 to 5 percent multi-line discount for purchasing CLC plans for both home and automobile together.

Ontario

EMPLOYMENT WANTED

Friendly Registered Dental Hygienist (new grad) seeking an exciting full-time position in Ontario. I have a dedication to excellence and continuous growth and wish to be a vital member of a dynamic team of oral health care professionals. Salary is negotiable. Please call Calvin at (705) 778-2322.

South Central, British Columbia

Full-time dental hygienist wanted for busy practice in South Central B.C. for a six-month term (replacing staff on maternity leave) starting January 1, 1999. The position may continue to permanent full-time or part-time.

Creston is a beautiful town in the Kootenays located on the U.S. border north of Spokane, Washington. The Kootenays have a good solid economy with plenty of employment opportunities in dental hygiene.

Reply with your resume to:

Creston Valley Dental Centre,
P.O. Box 2580, Creston, B.C., V0B 1G0
or phone (250) 428-9111.

SELF-ASSESSMENT TEST (continued from page 177)

Answer Key and Rationale

(The correct answer is indicated in parenthesis)

- 16.(4) Overexposure to ionizing radiation will result in dark films.
- 17.(2) By evaluating their knowledge, the dental hygienist would gain a better understanding of their knowledge.
- 18.(2) Irritated tissue associated with ill-fitting dentures is a predisposing factor to opportunistic Candida infections.
- 19.(2) Amending the chart is appropriate both from a legal and a quality assurance standpoint.
- 20.(1) This goal is specific, attainable and measurable by the client at home.

EXAMEN AUTO-ÉVALUATION (suite de la page 177)

Clé de réponses et justifications

(la bonne réponse est indiquée entre parenthèses)

- 16.(4) La surexposition au rayonnement ionisant entraînera des films foncés.
- 17.(2) En évaluant leurs connaissances, l'hygiéniste dentaire aurait une meilleure idée de ce qu'ils savent.
- 18.(2) Les tissus irrités associés à une prothèse mal ajustée sont un facteur prédisposant aux infections opportunistes dues à Candida.
- 19.(2) Modifier le dossier est approprié tant sur l'aspect juridique que sur l'aspect de l'assurance de la qualité.
- 20.(1) Ce but est spécifique, atteignable et mesurable par le client à la maison.

Classified Ad Rates

Fifty (50) words or less, \$26.75 (GST included).
Additional words: \$0.54 per word (GST included).

Closing date for the receipt of copy is approximately one month prior to publication date:

DEADLINE	ISSUE	CIRCULATION DATE
December 10	January/February	January 15
February 10	March/April	March 15
April 10	May/June	May 15
June 10	July/August	July 15
August 10	September/October	September 15
October 10	November/December	November 15

Advertisers' Index

BLOCK DRUG	IBC
BRAUN	177
BUTLER	160
CDHA	162 & 192
COLGATE	IFC
HU FRIEDY	OBC
JOHNSON & JOHNSON	189
MERRILL LYNCH	190
OPTIVA	164
ORAL B	176
PERIO REPORTS	194
PREMIER	167

Perio REPORTS

Bimonthly publication designed for dentists and dental hygienists concerned about their patient's periodontal health. Each issue summarizes periodontal research of specific interest to clinicians. Easy to read format keeps you up to date on the latest research findings.

Journals reviewed for **Perio REPORTS** include:

Journal of Periodontology
Journal of Clinical Periodontology
Journal of Periodontal Research
Journal of Dental Research
Periodontal Abstracts
Quintessence International
JADA, JADHA

☐ Please send sample issue for my review

☐ \$48 one-year ☐ \$84 two-year

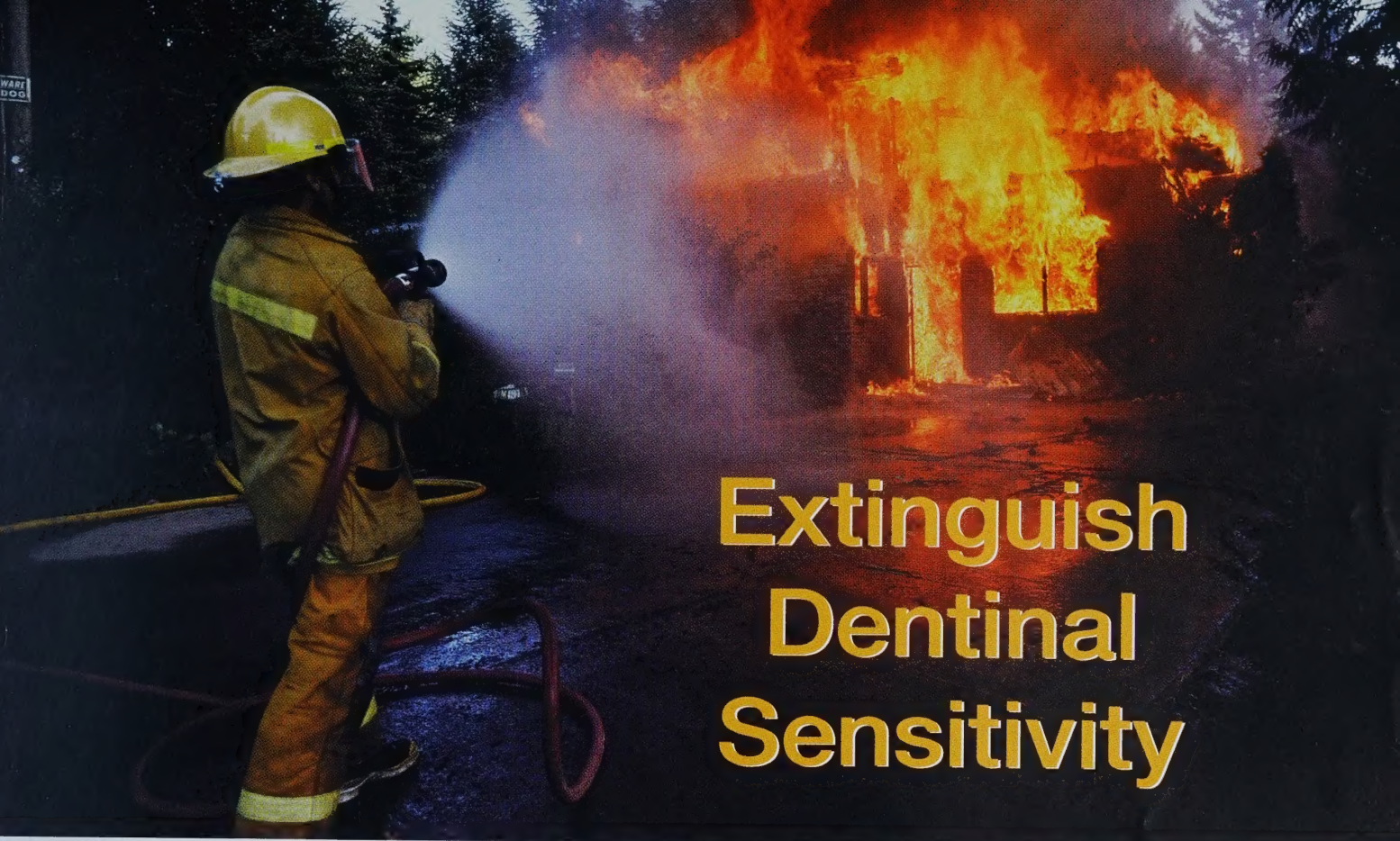
Name _____

Address _____

City _____ Prov. _____ Postal Code _____

Mail to:

PerioREPORTS, P.O. Box 52090
311 - 16th Ave. NE, Calgary, Alberta T2E 8K9



Extinguish Dental Sensitivity



Sensodyne[®] Chairside Solution

A one-minute, single-application chairside treatment
for immediate relief from dentinal sensitivity

Effective: 6% Ferric Oxalate, for clinically proven obturation of dentinal tubules

New Indications: Reduction of microleakage under amalgam restorations[†] and under crowns[†]

Long-Lasting: Relief lasts up to 6 months

Improved Packaging: Easier-to-use dropper bottles

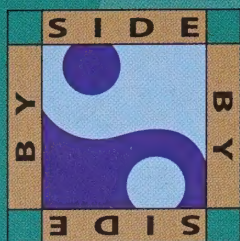


*TM Block Drug Company (Canada) Ltd.

For more information, call: 1-800-387-4588

Only **Sensodyne[®]** offers both
chairside and in-home treatment products
to extinguish dentinal sensitivity.

[†] When cemented using non-composite materials



Go Side by Side with Hu-Friedy

When you team up with Hu-Friedy you're always a winner! That's why Hu-Friedy's teamed up our most popular and exciting products for the unbeatable free offer you've been waiting for.

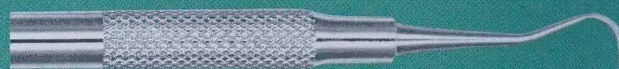
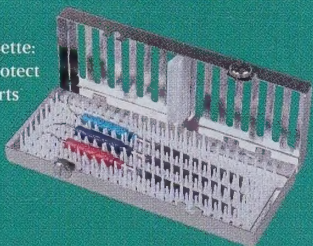
**For every 6 scalers
or curettes purchased,
get 1 FREE.**

**Pair them with Hu-Friedy
Ultrasonic Inserts:**

**Buy 2 ultrasonic inserts,
get 1 FREE.**

**Buy 3 ultrasonic inserts,
get 1 FREE and 1 FREE
IMS™ handpiece cassette.**

IMS handpiece cassette:
also designed to protect
delicate ultrasonic inserts



Hu-Friedy scalers and curettes set the industry standard for quality and performance: the sharp, long lasting edges and optimal strength are the choice of hygienists.



Hu-Friedy Ultrasonic Inserts offer the perfect pairing of efficiency and patient comfort: you can dial down the power and still achieve efficient, thorough scaling. Choose from 18 styles including our exclusive PLUS™ designs.

Purchases must be made between September 1 and December 15, 1998

*Offer valid in the United States and Canada only.

To Receive Your FREE Product(s)

Please complete this coupon and send with a copy of your dealer invoice indicating the required purchases to:
Side by Side, Hu-Friedy Mfg. Co., Inc., c/o Ajax Marketplace,
P.O. Box 31030, 475 Westney Rd. North, Ajax, Ontario L1T 3V2

☐ I purchased _____ scalers or curettes.

Send me my FREE scaler(s) in the quantity
and handle choice I've indicated below.
(1 free for every 6 purchased)

_____ H6/H7 (SH6/7)	#2	#4
_____ Gracey 11/12 (SG11/12)	#2	#4
_____ Gracey 13/14 (SG13/14)	#2	#4
_____ #204S Sickle Scaler (S204S)	#2	#4
_____ Columbia 13/14 (SC13/14)	#2	#4

(circle handle choice)

Handle
Options:



#2 Octagonal



#4 Round

☐ I purchased 2 Hu-Friedy ultrasonic inserts.

Send me 1 FREE insert in the choice
I've indicated below.

(Must be equal or lesser value of inserts purchased.)

☐ I purchased 3 Hu-Friedy ultrasonic inserts.

Send me 1 FREE insert and a
FREE IMS handpiece cassette.

I've indicated my insert choice below.

(Must be equal or lesser value of inserts purchased.)

_____ Original Prophyl Style	_____ After Five ⁺
_____ Original Prophyl PLUS™ Style	_____ After Five PLUS™ ⁺
_____ Streamline™ (handle color)	_____ Furcation ⁺
_____ #10 Universal (lavender)	_____ Furcation PLUS™ ⁺
_____ #1000 Triple Bend (orange)	_____ (circle one) Straight Left Right
_____ #100 Thin (black)	
_____ #3 Beavertail (yellow)	

IMPORTANT: Is your ultrasonic unit 25kHz or 30kHz? _____

Please print clearly. Allow 6-8 weeks for shipment of free good(s).

Name _____

Address _____

Phone (____) _____ Dealer _____

Dealer Representative _____

May not be combined with any other offer. Invoice must be dated between
September 1 and December 15, 1998. Redemption must be postmarked
by January 31, 1999.

The Canadian Dental Hygienists Association

PROBE

dent

JOURNAL

de l'Association canadienne des hygiénistes dentaires

November/December 1998 vol. 32 no. 6

National Campaign Report

Brush • Floss • Smile • in Hungary

Tobacco Issues in Elementary Schools



PULSE®

POWER TOOTHBRUSH

WHAT MAKES IT SO UNIQUE?

1 PULSE SIMULATES THE DR. BASS TECHNIQUE TO ENSURE PERFECT BRUSHING RESULTS.

This unique pulsating action moves the bristles "up and down" at 6,000 strokes per minute. So no special technique is required to give your patients a clean they can feel.



2 IT'S CLINICALLY PROVEN TO BE HIGHLY EFFECTIVE.

Results show that Pulse is unsurpassed when compared to a leading power toothbrush in reducing gingival bleeding, interproximal plaque and stains.

3 IT'S LIGHT. IT'S PORTABLE.

Easy to take anywhere, anytime, anyplace. Pulse now comes with a travel case.

4 IT'S EXTREMELY AFFORDABLE.

Priced at about half the cost of some leading power toothbrushes in the market today, Pulse is highly affordable.

5 PULSE CLEANS THREE WAYS.

The three levels of bristles help dislodge food particles and plaque by gently cleaning:

- A) Between the teeth
- B) Hard to reach areas
- C) And even below the gumline.



6 IT'S SAFE.

Pulse has no recharger or electric cord but is battery powered making it unsurpassed for safety. It is also completely water resistant, so it can be used safely in the shower.

7 IT'S GENTLE.

It safely cleans crowns, bridges, braces and all types of restorative dentistry with no damage. Also available in a NEW compact head size.

8 IT'S THE PERFECT SOLUTION.

It's the perfect gift for your patients with imperfect brushing habits, or ideal as a recommendation to your patients needing improved compliance.



BUTLER GUM®

EXPERTS IN ORAL CARE

For more information or to see a Butler Sales Representative, please call toll free:

1-800-265-8353

© 1998 John O. Butler Company

A Scientific Publication for Dental Hygiene Research in Probe



Marilyn Goulding,
MO.Sc.

Dear Colleagues,

CDHA has a very exciting announcement, something for which we have been waiting for some time. We have the approval from Executive Council to dedicate two of this year's six issues of *Probe* exclusively to scientific material. These issues will target work of the dental hygiene research/education community in Canada, who are invited to submit original work for publication. Work will be reviewed by qualified peers and publication will be in a guaranteed scientific format.

As former scientific editor of *Probe*, I am honoured to be asked by CDHA to head the launch of a venture of this magnitude, a *Probe* "Scientific Issue" that will serve as a benchmark for the evolution of our association.

We will begin this new work in the May/June issue of *Probe*, and follow it with a second "Scientific Issue" in November/December. There is much to do prior to our premiere publication. The Advisory Group is busy firming up our mission statement, that the publication is aimed at "providing a forum for the dissemination of original dental hygiene research with the intent of contributing to the evolving body of dental hygiene knowledge". We are currently reviewing *Probe's* submission guidelines to ensure that they meet the scientific requirements necessary for the new issues, and we are already reviewing manuscripts for publication in the first issue.

I would like to take this opportunity to introduce the dental hygienists, all primarily involved in the research/education field, who have agreed to provide their input to this venture and serve as the first Advisory Group. I'm sure you'll agree that they're more than qualified to assist in launching such an endeavour. The Advisory Group members will consist of myself as Scientific Editor, Joanne Clovis, Bonnie Craig, Bob Dunford, Patricia Johnson, Janice Pimlott, Salme Lavigne, and Laura MacDonald as CDHA's Editorial Board Liaison. Biosketches of each Advisory Member can be found on pages 226 and 227.

Each time we make the decision to take a new step to advance dental hygiene we expect growing pains. We always try to anticipate just what we're in for... will our original *Probe* continue to thrive? Will the ever-widening interests of our readers be served? Will we advance the growth of the profession? Will we receive the calibre and the numbers of original papers we need to make this new series a success? The affirmative answer to all these questions lies with YOU!

These publications are your ONLY Canadian voice. What you send us and that which ultimately goes into print, paints the portrait of Canadian dental hygiene for the world to see. How do you want us to appear in the global health professional gallery? Will we present a profile of which we can be proud?

A powerful core of your colleagues is willing to lend their artistic talents to "painting the picture". We need you to put pen to paper or fingertips to keyboard, as the case may be, and support this next stage in our professional growth; a *Probe* "Scientific Issue". I know we're ready for it. All we need is a little Motivation to Move and I'm counting on you to help me present a publication worthy of the expertise that I know is out there. I visit dental hygienists from coast to coast on a regular basis and I know the work in which they are involved and see what they are capable of achieving. As a result I become more fiercely proud to be counted as one of the growing numbers of Canadian dental hygienists.

Remember your efforts aren't really complete until they're published, so share your knowledge, share your gifts, write and disseminate your work. We had fun making the big announcement with an official town crier at the CDHA professional conference this summer in PEI — the word is out. We soon expect to see the effects with an influx of papers from the many dental hygienists out there seeking a printed venue worthy of all their hard work. Without the support of the membership the new journal will not become a reality. It is my sincere hope that you will see this effort as one worthy of CDHA's time and efforts.

Sincerely,

Marilyn Goulding, MO.Sc.
Scientific Editor of *Probe's* (Scientific Issue)



Executive Director, Carol Matheson Worobey and Past-President Judy Clarke unveil the *Probe* "Scientific Issue" launched at the PEI conference.



Canada's #1 selling
toothbrush is now
within reach.*

Until now, the only place our brushes couldn't reach was your office.

That's changed. Starting in September, you'll be able to order REACH® toothbrushes from your dental distributor.

More than the toothbrush your patients prefer, REACH® offers a brush for every need, from adults who need help brushing hard-to-reach places to kids just getting started.

So why wait? Reach for the phone, and place your order today!



 **REACH®**

Johnson & Johnson

© Johnson & Johnson Inc. 1998. *Consumer purchases.

199 GUEST EDITORIAL

A Scientific Publication
for Dental Hygiene Research in *Probe*
By Marilyn Goulding, MO.Sc.

203 PRESIDENT'S MESSAGE

To Bill or Not to Bill?
By Donna Bowes, Dip.D.H., Dip. Gerontology

205 NEWS

FEATURE ARTICLES

- 208 Brush•Floss•Smile in Hungary
By Margit Juhasz, RDH
- 209 An Interdisciplinary Approach to Address
Tobacco Issues in Elementary Schools
Through Peer Training
By Brenda Ziemer, RDH and Bernice Doucet, RDH

211 ABSTRACT

Changes in Maternal Attitudes Towards
Baby Bottle Tooth Decay
Prepared by Carol Barr Overholt, Dip.D.H.,
Contributing Editor

SELF-ASSESSMENT TEST/ EXAMEN AUTO-ÉVALUATION

- 212 Sample questions from the National
Dental Hygiene Certification Board
(NDHCB)
- 223 Exemple de questions du Bureau national
de la certification en hygiène dentaire
(BNCHD)

INFORMATION

- 215 CDHA Launches National
Public Awareness Campaign
- 221 Annual Index
- 224 Continuing Education Calendar
- 225 Probing the Net
- 226 *Probe's* "Scientific Issue" Advisory Group
- 229 Merrill Lynch —
What to Expect in a Volatile Market and
Financial Tip — Retirement Realities
- 230 New Products
- 234 Advertisers' Index
Probe Advertising Rates
Classifieds

218 CDHA'S 10TH ANNUAL PROFESSIONAL CONFERENCE — 1999

- 220 Second Call for Abstracts



201



COVER:

Margit Juhasz, RDH, teams with her goddaughter
Renata, in Hungary this summer, where dental
hygiene is practically non-existent.

MANAGER, COMMUNICATIONS SERVICES: Angela J. Whelan, B.A.
EXECUTIVE DIRECTOR: C.M. Worobey, Dip.D.H.
EDITORIAL ADVISOR: K. Edwards, M.A.
CONTRIBUTORS

Carol Barr Overholt, Dip.D.H.
Leanne Carlson-Mann, Dip.D.T., Dip.D.H.
Karen Wolf, Dip.D.H.

EDITORIAL BOARD

Laura MacDonald, Dip.D.H., B.Sc.D., M.Ed.
B. Fortune, Dip.D.H.
Jane Waites, Dip.D.H.
L. Guest, Dip.D.H., B.H.Ed.
R. Lunn, Dip.D.H.

DESIGN: Edels-Marcotte

Published six times a year by The Canadian Dental Hygienists
Association, 96 Centrepoin Drive, Nepean, ON K2G 6B1
Tel (613) 224-5515

Canada Post Publications Mail Registration No. 5793

CANADIAN POSTMASTER: Notice of change of address
and undeliverables should be sent to:

Canadian Dental Hygienists Association
96 Centrepoin Drive,
Nepean, ON K2G 6B1

Subscriptions \$69.55 (GST Included) in Canada, \$110.00 Cdn
for US and \$115.00 Cdn elsewhere. Fifty cents per issue is allocated
from membership fees for journal production. All statements are
those of the authors and do not necessarily represent the CDHA,
its Board, or its staff.

ADVERTISING AND SUBSCRIPTIONS:

Keith Health Care Communications
1382 Hurontario St.
Mississauga, ON L5G 3H4
(905) 278-6700

CDHA 1998
6176 CN ISSN 0 834-1494
GST Registration No. R106845233

CDHA CENTRAL OFFICE STAFF

Executive Director: Carol Matheson Worobey
Manager, Communications Services: Angela J. Whelan
Manager, Finance and Administration: Monique Belleau Rock
Manager, Member Services: Sandra VanWart
Member Services Assistant: Louise Lalonde
Administrative Assistant: Shelly Minnie
Receptionist/Information Clerk: Francine Fortin

All CDHA members are invited to call the CDHA's Member Line
toll-free, with their questions/inquiries:

1-800-267-5235, Fax (613) 224-7283

Internet: <http://www.cdha.ca> E-mail: info@cdha.ca

We look forward to serving you.

The Canadian Dental Hygienists Association's Journal, *Probe*, is the
official publication of the CDHA. The CDHA invites submissions
of original research, discussion papers, and statements of opinions
pertinent to the dental hygiene profession. All manuscripts are refereed
anonymously. Contributions to *Probe* do not necessarily represent the
views of the CDHA, nor can the CDHA guarantee the authenticity
of the reported research. Copyright 1998. All materials subject to this
copyright may be photocopied for the non-commercial purpose of
scientific or educational advancement.



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION

L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Financial planning ...for your family and your future

Achieving financial independence does not happen by accident. It requires an ongoing commitment to planning, saving and investing.

To help you prepare for your future, The Canadian Dental Hygienists Association, in cooperation with Merrill Lynch Canada Inc., has developed the CDHA Retirement and Savings Program Component of the CDHIP. This component is

designed to advance the financial affairs of CDHA members and their families with advantages that include discounted fees, planning services, seminars and more.

The CDHA and Merrill Lynch are committed to helping you achieve your financial well-being. For more information, or to talk to a Financial Consultant, contact the CDHA Investor Services Hotline at **1-800-563-6623** or visit

www.vcomsolutions.com/cdha



Merrill Lynch

Merrill Lynch Canada Inc.
is a member - CIPF

CDHIP - THE INSURANCE PLAN MADE FOR CANADIAN DENTAL HYGIENISTS

To Bill or Not to Bill?

Donna Bowes, Dip.D.H., Dip. Gerontology

In the July/August volume 32 no. 4 issue of *Probe*, a bulletin to members announced the introduction of a national system of dental hygiene codes and services for direct billing purposes. This system was developed as a result of numerous requests from those members who are able to provide services directly to the public due to changes in legislation. Requests for information on direct billing began flooding into the Central Office almost as soon as the *Probe* was mailed, and continue to be received daily by CDHA's Central Office staff. This is gratifying to the past CDHA Board of Directors, as it confirms and supports the decisions made several months previously.

As with any venture into the unknown, the decision to move forward with such a potentially controversial undertaking was not easily made. Members of the board questioned the wisdom of entering the world of insurance providers and benefit plans. Concern was expressed with regard to the reaction of dentistry and our own members. Ultimately, the board determined that there were two primary considerations which outweighed their reservations: the future of the profession and the needs of the public.

Implementation of the direct billing process will rest largely with those members who are in a position to use it. Even though the project was developed with input from Canadian Health and Life Insurance Association (CHLIA) we know that there will have to be changes and adjustments made on an ongoing basis. CDHA Central Office is prepared to enable this after seeking feedback from the members who use the codes and forms, as well as from insurers.

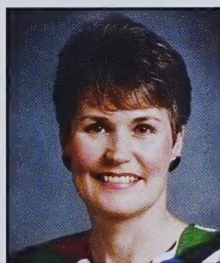
It is my personal belief that having a method of direct billing available to dental hygienists will open up new avenues of service delivery and will assist in developing innovative approaches to ensure that the public has access to dental hygiene care. For example, one of the key factors cited by agencies for not employing dental hygienists was the inability to direct bill for their services. Where regulations permit, dental hygienists will now be available for contract employment by health care agencies such as the Victorian Order of Nurses (VON) or ComCare, just as other professionals such as physiotherapists, nurses, respiratory technologists and speech therapists have been for some time.

This system is not intended for dental hygienists employed within a dental office or in provinces where this type of public access to dental hygiene care has not been enabled by legislation. However, it is possible that at some point insurers may question the validity of claiming for dental hygienist — delivered services utilising dental codes instead of the accepted dental hygiene codes. We have to be prepared for this question and future trends.

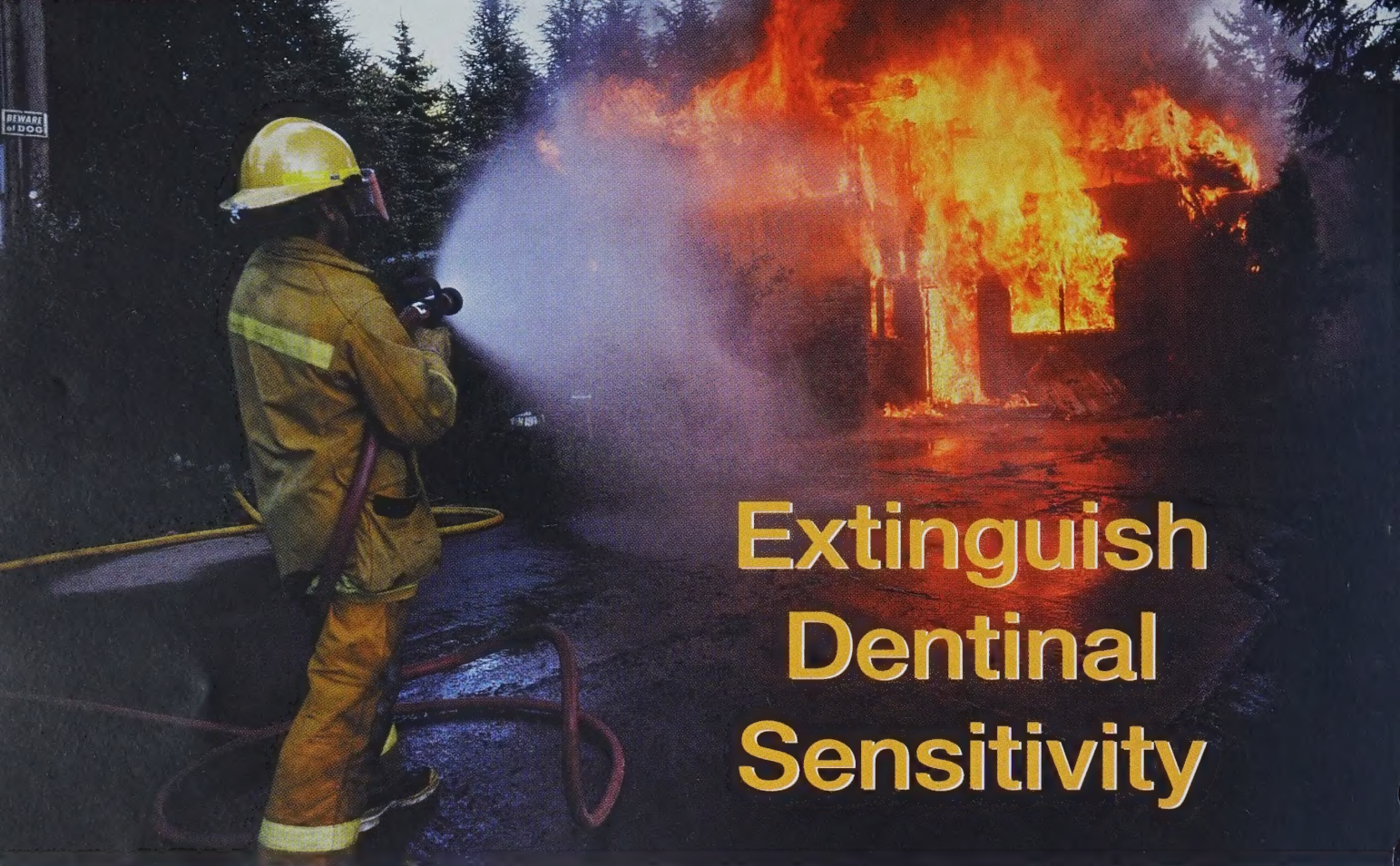
In the July/August 1997, volume 31 no. 4 issue of *Probe*, Audrey Newcombe discussed the "business" of dental hygiene in a Guest Editorial. Ms. Newcombe outlined very clearly the need for dental hygienists to become better educated in basic business principles if they expect to be recognized as valuable contributors in a private practice environment. Dental hygienists may want or need to consider establishing business agreements with dentists in the future, rather than maintaining employer/employee relationships. This can be a mutually beneficial situation where, as a contractor, the dental hygienist could bill clients directly and develop a business arrangement which would reimburse the dentist for a portion of the practice overhead.

Another factor supporting the need for business agreements is found in areas of the country where dental hygienists are self-regulated. When, for example, regulations pertaining to record keeping and quality assurance programs exist, or where guidelines (such as those in Ontario for informing clients/patients that a dental hygienist is leaving a practice) reinforce the need for some control over the dental hygiene aspects of the practice, dental hygienists must abide by the regulations and standards set by their own regulatory bodies. A business agreement between professionals would make this process far easier to put into practice than would an employer/employee relationship.

All of these considerations played a part in the CDHA's determination to provide a mechanism for direct billing. Those dental hygienists who have developed innovative strategies for delivering services should be regarded as leaders and pathfinders. They deserve support and assistance in their efforts to meet the needs of Canadians who want to access dental hygiene services directly. It is visionaries and entrepreneurs like these who will ensure the future of the profession.



Donna Bowes received her Dental Hygiene Diploma in 1980 from Algonquin College in Ottawa, Ontario, and her Diploma in Gerontology in 1989 from Georgian College in Barrie, Ontario. She has been employed in private practice and public health since 1980 and has a particular interest in working with long-term and palliative care.



Extinguish Dentinal Sensitivity



Sensodyne* Chairside Solution

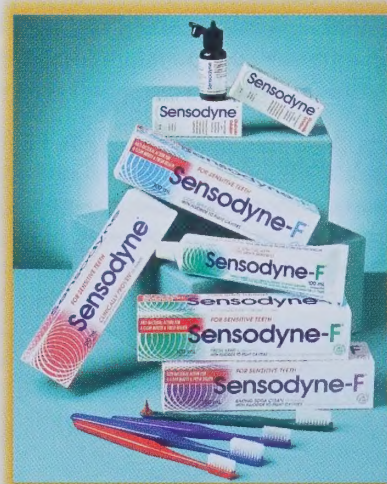
A one-minute, single-application chairside treatment
for immediate relief from dentinal sensitivity

Effective: 6% Ferric Oxalate, for clinically proven obturation of dentinal tubules

New Indications: Reduction of microleakage under amalgam restorations[†] and under crowns[†]

Long-Lasting: Relief lasts up to 6 months

Improved Packaging: Easier-to-use dropper bottles



Only **Sensodyne*** offers both
chairside and in-home treatment products
to extinguish dentinal sensitivity.



*™ Block Drug Company (Canada) Ltd.

For more information, call: 1-800-387-4588

[†] When cemented using non-composite materials

www.cdha.ca

A New Look for CDHA's Web Site...



<http://www.cdha.ca>

The Canadian Dental Hygienists Association is proud to announce the introduction of a new design to its web site. CDHA recently underwent modifications to their existing site with the assistance of Everest New Media, an Ottawa-based Internet company. The new site improves access to CDHA members and the Canadian public. We hope the new features available within the site will help members grow, both professionally and personally, and help all Canadians focus on good oral health.

INCLUDED IN THE NEW ADDITIONS ARE:

- "About CDHA" — information about CDHA, facts about dental hygienists and a bulletin board to highlight news briefs issued from CDHA
- "What's New" — our newsroom of events, statements from, or latest developments occurring within the association
- "Publications & Products" — CDHA has highlighted a wide range of publications and products available through CDHA for public distribution
- "Cool Links" — a mixed bag of interesting links for dental hygiene professionals and the Canadian public.

- "Resource Center" — a list of informative topics available to members and of interest to the general public
- "Events & Conferences" — features CDHA events and conferences at the national and provincial levels
- "Patients & Consumers" — information geared to the public to help them maintain good oral health
- "Discussion Board" — an opportunity for members and the general public to discuss dental hygiene related issues with people all over the world.

As one of the benefits of membership the Internet site will offer additional information exclusively to CDHA members through the "Members Only" section.

We hope the site demonstrates the value of the CDHA and the importance of belonging to an association committed to enhancing the profession through public awareness initiatives. Please feel free to browse through the new site and if you have any questions, comments or feedback contact CDHA online via e-mail at info@cdha.ca

Salme Lavigne Joins CDHA as Vice-President



Salme Lavigne, RDH, BA, MS,
CDHA Vice-President

It was with great sadness that CDHA's Executive Council accepted Ms. Darlene Thomas' resignation as CDHA Vice-President. As a result, Lynda McKeown has become President Elect and Salme Lavigne has joined CDHA as Vice-President. Salme Lavigne is currently Director for the School of Dental Hygiene at the University of Manitoba.

Over the years, Ms. Lavigne has been active in several professional associations including CDHA and the American Dental Hygienists Association (ADHA), as well as the American Association of Dental Schools (AADS) where she was recently elected to serve as Councillor for the section on Dental Hygiene Education for a three-year term. Appointments have included Accreditation Consultant for the Council on Dental Accreditation, ADA; Delegate for ADHA; Advisory Committee Member for the Geriatric Oral Health Promotion Grant at UMKG; as well as Director for CDHA. In addition, Ms. Lavigne has several journal publications and a chapter in a newly released textbook "Nonsurgical Periodontal Therapy" by K. Hodges, published by Delmar Publishers.

206

New CDHA Board of Directors for October's 1998 Inaugural Session

The Canadian Dental Hygienists Association's Board of Directors Inaugural Session took place in Ottawa between October 16-18. CDHA welcomed the following new board members noting their respective affiliation:

- Dianne Stojak**,
British Columbia Dental Hygienists Association (BCDHA)
- Laurrie Rieger**,
Alberta Dental Hygienists Association (ADHA)
- Angela Yarnnton**,
Saskatchewan Dental Hygienists Association (SDHA)
- Natasha Kravtsov**,
Manitoba Dental Hygienists Association (MDHA)
- Barbara Gibb**,
Ontario Dental Hygienists Association (ODHA)
- Chantal Normand**,
Representing the province of Québec
- Cindy Holden**,
Newfoundland Dental Hygienists Association (NDHA)
- Kathleen Trites**,
New Brunswick Dental Hygienists Association (NBDHA)
- Patricia Sinnott-Curran**,
Prince Edward Island Dental Hygienists Association (PEIDHA)
- Karen Wolf**,
Nova Scotia Dental Hygienists Association (NSDHA)
- Fran Richardson**,
Federation of Dental Hygienists Regulatory Authorities (FDHRA)
- Susanne Sunell**,
Dental Hygiene Educators Canada (DHEC)
- Patricia Noble** as CDHA's new Speaker

Highlights of CDHA's October 1998 board meeting will be available in the January/February 1999 edition of *Probe*.



CDHA's Annual Board members from left to right:

First row: Dorothy Stratchan (Facilitator), Executive Council members Judy Clarke, Donna Bowes, and Linda McKeown and Patricia Noble (Speaker).

Second row from left to right are new Board Members: Barbara Gibb, Patti Sinnott-Curran, Laurrie Rieger, Kathleen Trites, Dianne Stojak, Susanne Sunell, Fran Richardson, Chantal Normand, Angela Yarnnton, Natasha Kravtsov and Karen Wolf.

Missing from photo are Cindy Holden and Vice-President Salme Lavigne.

Diane McCambly and Laura MacDonald Receive CDHA's Distinguished Service Award



CDHA President Donna Bowes presents a plaque to one of this year's Distinguished Service Award recipients, Diane McCambly, Dip.D.H.

The Canadian Dental Hygienists Association recently announced Diane McCambly, Dip.D.H. and Laura MacDonald, Dip.D.H., B.Sc.D., M.Ed, as the 1998 CDHA Distinguished Service Award recipients. The award is presented in recognition of dedication to the advancement of the profession of dental hygiene in Canada.

Diane's direct involvement with the national association began in 1991 when she was elected as Ontario's representative to the CDHA Board of Directors. She sat as a member of the CDHA Practice and Regulation Council before being elected its Chairperson, a position that she held until her term finished in December 1994.

In 1995, although retired as a Director, she began working as a member of, and eventually Chairing, what would become the CDHA Dental Hygiene Delivery Committee. The Dental Hygiene Delivery Committee was created to investigate and develop a mechanism for dental hygienists to receive direct reimbursement from the public and dental insurance companies for the dental hygiene services they provide, where such a mechanism is legal in the province. This was quite a challenge for the committee since no unique coding system currently existed either in Canada or internationally.

Diane dedicated herself fully to this project and, as a result of her work, the *CDHA Transitional Fee for Service System of Coding* and the

CDHA Claim Form were developed. They will forever enhance and benefit both the dental hygiene profession and the public as the basis of a system for direct reimbursement to dental hygienists.

Concurrent with her work on the Dental Hygiene Delivery Committee, Diane was also a key member of the Ottawa Organizing Committee of the 1997 CDHA Annual Professional Conference, holding the position of Chair of the scientific portion of the program.



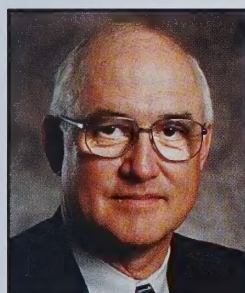
Laura MacDonald, Dip.D.H., B.Sc.D., M.Ed,

Laura MacDonald joined Diane McCambly as recipient of the Distinguished Service Award. Since graduating from the University of Manitoba in 1991, Laura has contributed significantly to the professional associations of dental hygiene at both the provincial and national levels.

Laura has served as President of Manitoba Dental Hygienists Association (MDHA) and was a member of the Oral Health Team Committee for two years. Laura is also very active with

CDHA activities. She is currently a member of *Probe's* Editorial Board and will act as liaison between *Probe's* current publication and the dedicated "Scientific Issues" to be introduced in the Spring and Fall of 1999. Her list of accomplishments ranges from Health Promotions Committee Chair, to most recently chairing the National Dental Hygiene Certification Examination Committee. Her pride in the profession is reflected in the enthusiasm with which she facilitates learning in her students, conducts business with peers and promotes awareness of the dental hygiene profession to the public.

New President and Vice-President for the CDA



Dr. Richard D. Sandilands President, Canadian Dental Association, 1998-1999

Alberta dentist, Dr. Richard D. Sandilands, has assumed the office of President of the Canadian Dental Association, following the association's annual Board of Governors Meeting in Ottawa in September 1998.

Dr. Sandilands has been active at all levels of organized dentistry since receiving his dentistry degree from the University of Alberta in 1965. He served as President of the Edmonton and District Dental Society, the Alberta Dental Association, and the Western Canada Dental Society. He joined

CDA's executive council in 1993. Dr. Sandilands served as Interim Director of the Alberta Dental Association. He also held several posts at the University of Alberta. He was an associate clinical professor, a clinical instructor, a guest lecturer, and a member of the task force on dental studies.

Dr. Sandilands is a fellow of the Academy of Dentistry International, the American College of Dentists, the Pierre Fauchard Academy, and the International College of Dentists. He is also a member of Rotary International.



Dr. Burton Conrod Vice-President, Canadian Dental Association, 1998-1999

During the same annual board meeting, Dr. Burton Conrod of Sydney, Nova Scotia was acclaimed Vice-President of CDA. Dr. Conrod received his dental degree from Dalhousie University in 1976. He and his wife Connie, also a dentist, practice together in Sydney.

Dr. Conrod is a Past President of the Cape Breton Island Dental Society, and the Nova Scotia Dental Association. He has been a CDA Governor since 1991, and a member of Executive Council since 1995. Dr. Conrod is a member of the Pierre Fauchard Academy and a fellow of the International College of Dentists. Dr. Conrod will assume the office of CDA President in 2000.

Brush•Floss•Smile in Hungary

By Margit Juhasz, RDH

208

I was born and raised in a small village in the northeast of Hungary called Jaszjakohalma (Yass-Yacko-Hall-Ma). It was here that I went to school and was primed in the basics of life. My childhood memories are of hard-working people, hot wonderful summers, unpaved dusty roads and a lot of friends.

Since my early years a lot has changed for me. I emigrated to Canada and in 1993 graduated as a dental hygienist. However, every year I make a pilgrimage back to my home village of 3,100 people to visit my mother and the rest of my family.

This summer though, I didn't only pack my suitcases with gifts and clothing, but filled one case with 425 toothbrushes, 100 rolls of floss, and three pulse brushes. To help me introduce the concepts of oral hygiene to the village children, I also brought a plastic model of the mouth, an oversized brush and an album of pictures.

My family soon understood why the gifts were cut down to half — I had a goal: to teach children to brush and floss. My 10-year-old goddaughter Renata volunteered to help me and we made a great team. Every day we hopped on our bikes and took to the streets. We approached every kid we saw on these dusty, unpaved roads in 30°C heat. Parents and kids were stunned by the sight of the two of us biking up and down the streets giving out free toothbrushes and introducing them to basic oral hygiene. No-one had ever given them this information before. It may be hard to believe, but many children and adults did not even own a toothbrush until I handed one to them, and I learned that dental floss was a new concept for most of them too.

I realized that brushing and caring for their teeth has not been a priority for most of these villagers. I did not own a toothbrush until I was approximately eight or nine, and no-one ever told me to brush my teeth when I was little. The more toothbrushes and floss we gave away, the more excited I became. I have promised myself to do this kind of education in my future visits to Jaszjakohalma.

After talking to the local dentist who comes to the village twice a week, I learned that the water does not contain fluoride, scaling is rarely done, and placement of dental sealants is even less common. There are a lot of people with missing and damaged teeth. Since the end of the Communist state, free dental treatment has also disappeared and people simply do not have the money to replace their original dentition with bridges, crowns, partials and dentures.

Children and adults alike were fascinated by my unique presentation of the work of a dental hygienist. At this point there is no such profession in Hungary. I had a lot to tell them. First I had to explain what exactly a dental hygienist is and what they do, using the photographs of me at work in my office setting.

My "Brush•Floss•Smile in Hungary" project was both wonderfully rewarding and successful. It made me feel great and I know that the

program made a big difference to the people I met. Parents complimented and thanked me for what I had done, kids said hello to me on the street when I met them again. It was an enormously positive experience for everyone involved, not least for me. I came to the realisation that now, more than ever, my primary duty as a dental hygienist is to work on prevention and education and help people to keep their teeth and gums healthy forever.

I wish to express my thanks to the following colleagues and friends who supported "Brush•Floss•Smile in Hungary" with their financial and emotional contributions:

Barb Andrews, RDH
Kim Dipaolo, RDH
Tara Francescangeli, RDH
Halton Peel Dental Hygienists' Society
Dr. Lee Hickling
John O. Butler Company
Renata Juhasz

Pat Manacki, RDH
Dr. John Naccarato
Patterson Dental Inc.
Dr. Otto Spork
Teledyne Water Pik
Canada Village Centre
Orthodontists

Together we put toothbrushes into hands and smiles on faces and I reached one of my goals as a dental hygienist: Brush•Floss•Smile.



Happy moments for the village kids of all ages who gathered around to playfully respond to oral hygiene instructions.



Margit approaches a young girl on her way to the store to offer her a pictorial introduction to brushing and flossing.

Biography

Margit Juhasz received her degree of Associate in Applied Science Dental Hygiene when she graduated in 1993 from Erie Community College, Williamsville, New York State. She has been employed in private practice in Mississauga four days a week since her graduation. She also works at other offices on Saturdays. She is the co-president for 1998-99 year for the Halton Peel Dental Hygienists' Society as well as the Continuing Education Chairperson for 5 years. She is a member of the Annual Spring Meeting Committee of the Ontario Dental Hygienists Association (ODHA) for the past three years. She is single and her hobbies include bicycling (believe it or not — Ms. Juhasz bicycled across Canada in 1989), hiking, skiing and snowboarding.

An Interdisciplinary Approach to Address Tobacco Issues in Elementary Schools Through Peer Training

by Brenda Ziemer, RDH and Bernice Doucet, RDH

209

The purpose of this paper is to illustrate how our role as public health dental hygienists in the Western Region of Nova Scotia changed from that of a discipline-specific clinical role to that of an equal partner in an interdisciplinary school team. The report details specifically how this evolved for us as members of the Kids Against Tobacco Smoke (KATS) Program.

Role Change of Public Health Dental Hygienists

Prior to 1995 public health dental hygienists provided clinical services in elementary schools under a very structured model. A typical year consisted of the dental hygienist visiting the same schools and providing the same services for the same children as the previous year. The program was clinically structured, had little flexibility and was directed by a manager. If either of us wanted to deviate from her normal clinical day, permission had to be requested. This schedule was so routine that teachers knew exactly when the dental hygienist would visit their school. In this discipline-specific clinical role, we worked in isolation from other public health staff, and knew more about what was happening in the school community than in our public health workplace.

Major changes in public health began when the South West and Valley Health Units combined to form Public Health Services, Western Region. Also at this time, the Nova Scotia Department of Health developed a strategic plan¹ which based programs on the Health Promotion Model.

An Interdisciplinary Approach

Health promotion as defined by Labonte (1993)² is "any activity or program designed to improve social and environmental conditions such that a person's experience of wellbeing is increased". Another definition for health promotion is "the process of enabling people to increase control over, and to improve, their health"³. The strategies to support health promotion as described in the Ottawa Charter include building public policy, developing personal skills and strengthening community action.

We were challenged to look at our program and fit it into the Health Promotion Model. Our initial reaction was fear, as we had to step out of our "comfortable" clinical practice and completely change our way of working. The fear resulted in stress over possible job loss and

a sense of not belonging. One reaction was over volunteering for anything related to our field, in the hope that a purpose would be found and our future ensured.

We went through a period of grief; losing our clinical practice (which made up 95 percent of our traditional job) felt like losing a friend. It meant taking the leap from the safety of the clinical setting into the unknown. Among other things it meant developing partnerships with other public health staff, giving ourselves permission to move out of our clinical setting and to take risks.

Timing was on our side. *The Nova Scotia Children's Oral Health Report*⁴ release was delayed and did not immediately impact on the Dental Hygiene Program. The Director of the Public Health Western Region allowed us time to reflect on the Health Promotion Model and identify roles in it within which we could fit, as well as supporting an education program facilitated by a public health colleague to assist with the change.

The process to support our role change, which included enhancing facilitation skills, took approximately six months. Key factors which helped us move forward to identify health promotion skills were:

- The support of the administration, but more importantly from each other;
- Awareness that the stated competencies of the public health team written in the Public Health Strategic Plan¹ included skills that we possessed;
- The realization (through articles in dental hygiene journals^{5, 6}) that changes of the Health Promotion Model were not unique to the Western Region.

As the process to support change evolved, we identified our emerging new roles and shared them with other public health staff. We began to see ourselves as valuable team players; we gave ourselves permission to make decisions and prioritized our involvement in the program to take action in areas where we would make the greatest difference. These roles were not written in stone, but evolved as part of an ongoing process of change to meet public health promotion goals.

As a result of our role change, we have emerged as equal partners in an interdisciplinary school team involved in many projects, one of which is Kids Against Tobacco Smoke (KATS).

Involvement in Kids Against Tobacco Smoke

KATS began as a pilot project of Public Health Services, Western Region in partnership with the Coordinator of *Kings Wide Initiative to Stop Smoking* (KWITSS). The purpose of KATS is to train Grade 5 and 6 students as peer leaders, to organize and promote activities in their school to encourage other students to choose a smoke free lifestyle.

REGIONAL IMPLEMENTATION

The pilot was so successful that funding was made available to include elementary schools in other counties of the Western Region in the program. Due to the expansion of the program more partners were required, and subsequently the public health school health team became a partner. The present interdisciplinary team includes dental hygienists, health educators, nutritionists, nurses, licensed practical nurses, and administrative assistants.

PROGRAM PARTNERING

Once Public Health Services was committed to implementing the program on a regional basis, support from the Department of Education was critical to ensure success. The program needed involvement from all levels of the education system: the school board, principals, teachers, parents and students. This is where the dental hygienists played a major role.

Through their prior involvement in the schools in both clinical settings, and public education roles, we had built relationships of trust. These relationships made it possible for contacts to be made easily with school board members, principals, and teachers. As a result of these connections, the KATS program was received well by the school community.

Once this major school partner was on board, the public health school team needed to identify and contact external partners. These included high school and community drama groups, the Cancer Society, the Lung Association, media, parents and other community volunteers.

PROGRAM IMPLEMENTATION

The actual implementation of the KATS program involves contacting interested elementary schools who select eight students from Grades 5 and 6 to attend a one day peer leader training session. The school also selects an advisor (teacher, volunteer) to work with the KATS team in their school.

Various training sessions are set up in each county with four to six schools attending each session. The training, available in both French and English, is led by public health staff and partners. Training takes place in the Fall, as it is recommended that KATS activities be scheduled to begin during *National Non-Smoking Week* in January and be completed by the end of May. Peer leader training comprises a full day of sharing of tobacco information, body image discussions, team building exercises and mini workshops on role play, classroom activities, creating jingles and poster making.

Once the KATS team has been trained, they return to their schools and organize events which may include, for example, poster and rap contests, visits to classrooms to perform skits and presentations, and health announcements over the public address system.

Each school is assigned a public health school team contact to monitor the KATS team activities and to be a resource person for their events. In many cases, this is the role we take on. The resource person's role includes contacting schools, arranging training sessions, involving external partners, facilitating training days and workshops, and evaluating the program.

There are many benefits of the KATS program. The KATS team members improve their leadership skills, the awareness of the school population of the harmful effects of tobacco smoke is increased and students learn the importance of choosing a healthy lifestyle. As well, KATS develops partnerships among its many supporting agencies and organizations. The ultimate goal, that healthy children become healthy adults, reinforces the health promotion philosophy of enabling people to be responsible for their own health, and provides the dental health message that healthy smiles are related to a reduction in youth smoking.

Conclusion

The role change of public health dental hygienists in the Western Region of Nova Scotia helped ready us to become full members of the public health school team. As a result of our involvement in the KATS program in the last two years, we have become even more aware of our capacities, and see ourselves as an integral part of the interdisciplinary school health team. We have become comfortable with our changing role within a Health Promotion Model and are open to the exploration of new opportunities to support and enhance this role.

References

1. Nova Scotia Department of Health: *Information, insight, ideas, inquiry and intervention in action: The Public Health Services Strategic Plan*. Halifax. 1995.
2. Labonte, R.: *Health promotion and empowerment: Practice frameworks*. Toronto: Centre for Health Promotion and Participation. Toronto. 1993.
3. Health and Welfare Canada, World Health Organization, Canadian Public Health Association: *Ottawa Charter for Health Promotion*. Ottawa. 1986.
4. Nova Scotia Department of Health: *Oral health report*. Halifax. 1996.
5. Bassett, S.: "Dental hygienists as supervisor in a community health setting." *Probe* 1993, 27 (2)66.
6. Mykiety-Sherstobitoff, D.: "The speaker circuit: Another career option for dental hygienists." *Probe* 1995, 29 (6)220.



Brenda Ziemer, RDH, is a graduate of Dalhousie University School of Dental Hygiene. She is currently employed by the Public Health Services, Western Regional Health Board in Nova Scotia.



Bernice Doucet, RDH, is a graduate of Dalhousie University School of Dental Hygiene. She is also currently employed by the Public Health Services, Western Regional Health Board in Nova Scotia.

Prepared by Carol Barr Overholt, Dip.D.H., Contributing Editor

ARTICLE:

Changes in Maternal Attitudes Towards Baby Bottle Tooth Decay

Authors: Michael J. Kanellis DDS MS, Henrietta L. Logan PhD,
Jane Jakobsen MS

Journal: *American Academy of Pediatric Dentistry*

Nursing bottle caries (also called baby bottle tooth decay) is a form of tooth decay associated with allowing a child to sleep while sucking a bottle containing liquid fermentable carbohydrates. Although this problem has been studied and thoroughly documented, it continues to remain a major source of childhood dental disease. Despite the public information efforts of dental professionals there is no evidence as yet of a measurable decrease in nursing bottle caries.

The authors speculated that the information was not reaching the populations at greatest risk, but they wanted to investigate why this was happening. They cited a study by Johnsen (1982) which indicated that sixty percent of parents with children that had nursing bottle caries were unaware of the dental dangers of providing a bottle at bedtime. Even more confounding was the evidence that though the remaining forty percent of parents were aware that a bottle at bedtime was harmful to their children's teeth, they continued to give it to them. The article referred to several other studies that showed similar findings; even when aware of the problem, parents continued to do what they knew could be harmful, and even when the parents were "dentally aware" and "well educated". The authors drew a parallel to the adult community who fail to stop smoking even though they know the inherent dangers of this behaviour, or those who are overweight, yet fail to modify their eating or exercise habits.

The authors' main concern lay in the recognition of this fact that just because people know of the danger, one cannot assume that this will adequately predict their behaviour. Help in understanding this problem may lie in the use of psychological models of how persuasion works.

Using the Elaboration Likelihood Model of Persuasion (ELMP), researchers can determine whether the parents are persuaded to accept information based upon one of two routes of persuasion, central or peripheral. Those that process data using the central route of persuasion analyze the message and base their decision upon its content. Those persuaded using a peripheral route are influenced by the reactions of others, the credibility of the person providing the information, or other factors that are unrelated to the content of the message. According

to the theory of this model, attitudes that are formed through central persuasion are more prolonged and less likely to be influenced by outside factors and are therefore more likely to predict behaviour.

The purpose of this study was to discover whether women provided with a persuasive message about nursing bottle caries processed this information through a central or peripheral route. The authors suspected that if the information was processed through the peripheral route, it may explain why, when information surrounding nursing bottle caries is provided to parents, there is no evidence of a behaviour change.

The participants of this study were low-income women in eastern Iowa who were pregnant or had one child under seven months of age. The mothers completed a questionnaire designed to measure both attitude to and knowledge of the importance of primary teeth, the perception of the seriousness of nursing bottle caries, awareness of the disease and other questions associated with the condition.

Two experimental groups and one control group were established. Group One listened to a persuasive five-minute audiotape about the disease, the significance of primary teeth, and other related information such as the cosmetic problems associated with nursing bottle caries. Included on this tape was an audience murmuring things like "how interesting", "I didn't know that", "that sounds terrible", "poor little kids". It also included bursts of applause. Group Two listened to the same tape but without the audience overdubbed track. Each group was also asked to rate the message for clarity and quality.

The results of the study supported that after watching the video the change in knowledge/attitude was greater (more positive) for both subject groups than for the control group. No meaningful difference was found between the group who heard the commenting audience and the group provided with only the message. The groups rated the quality of the message similarly.

The article concluded that the study supported the view that the participants processed the persuasive message through the central (most behaviour predictive) route. The researchers maintain that the "challenge of the health profession (is) to develop persuasive strategies for increasing the likelihood that knowledge will lead to appropriate behaviours."

211

SELF-ASSESSMENT TEST



Questions 16 to 20 appeared in the September/October 1998 vol. 32 no. 5 issue of Probe. For more information contact: National Dental Hygiene Certification Board (NDHCB) P.O. Box 58006, Orléans, Ontario K1C 7H4
Telephone: (613) 837-2727 Fax: (613) 837-6971

212

21. What is the most important reason for the dental hygienist to postpone an appointment with a client who has an active herpetic lesion?

1. Dental hygiene treatment is too painful.
2. There is a risk of autoinoculation.
3. Operatory preparation takes too long.
4. There is a risk of cross infection from the client to the dental hygienist.

22. Geoffrey, 4 years old, is scheduled for the extraction of tooth 5.1, which has abscessed as a result of a previous trauma. The tooth is not currently painful, but Geoffrey's memory of the trauma and the resulting unpleasant dental appointment are extremely distressing for him. He asks the dental hygienist if the dental procedure will hurt. Geoffrey's mother has asked the dental hygienist to assure Geoffrey that the procedure will be painless because he will become hysterical and refuse the necessary treatment if he hears otherwise. Which of the following ethical principles are now in conflict for the dental hygienist?

1. Autonomy and justice
2. Beneficence and veracity
3. Autonomy and veracity
4. Justice and beneficence

23. Robert, 13 years old, presents with newly-erupted second molars and restored occlusal surfaces of the first molars. Which of the following actions would be most appropriate?

1. Apply pit and fissure sealants on occlusal surfaces of all second molars.
2. Apply chlorhexidine acetate (Chlorzoin) on all occlusal surface.
3. Recommend home application of fluoride-tray technique.
4. Recommend dietary fluoride supplements.

24. A dental hygienist has been asked to present an oral hygiene seminar to the grade 3 class in a remote rural community. Based on a fact finding questionnaire sent by the dental hygienist to the teacher, it is evident that not all the children have toothbrushes or indoor plumbing. Which of the following actions would be most effective?

1. Provide toothbrushes and instruction for a classroom brushing program.
2. Teach that rinsing after meals helps remove bacteria.
3. Give the teacher literature on oral diseases and brushing techniques.
4. Show a movie on oral hygiene instruction and leave it with the teacher.

25. What is the most effective quality assessment mechanism for the dental hygienist interested in self-evaluation?

1. Responding to client surveys and client complaints.
2. Attending regular continuing education courses.
3. Credentialing by the national professional association.
4. Participating in a national accreditation process.

26. Manufacturer's instructions for the application of pit and fissure sealants indicate that the tooth surface must be thoroughly washed and dried after preconditioning with phosphoric acid. Which situation could result from failing to do this?

1. Sealant retention will be compromised.
2. Autopolymerization or amine acceleration will not take place.
3. Defective areas will be difficult to detect with an explorer.
4. Compressive strength will be compromised.

27. Which one of the following client conditions would contraindicate the use of home-administered oral irrigation?

1. Susceptibility to bacteremia
2. Active tuberculosis
3. Viral pneumonia
4. Urinary tract infection

28. Which one of the following manifestations is a potential side effect of bleaching agents?

1. Demineralization
2. Tooth hypersensitivity
3. Leukoplakia
4. Gingival recession

29. Which statement best describes the position of a line drawn on the study model to be used as a guide for cutting and trimming the polyvinyl acetate-polyethylene in the fabrication of a mouthprotector?

1. 1-1.5 cm beyond the tuberosities
2. 1-1.5 cm short of the frenum attachments
3. 3.5 cm apical to the gingival margin
4. 2.5 cm beyond the hard palate

30. A National Dental Hygiene Campaign project is targeting a group of males who are smokers and who drink alcohol on a regular basis. Which one of the following topics would be most appropriate for an oral health presentation to this particular group?

1. The benefits of stain-free dentition
2. How to perform an intraoral self-examination
3. The detriments of smoking as the primary risk factor in periodontitis
4. The health risks of drinking

Answer Key and Rationale ...continued on page 225



National Dental Hygiene Week
Semaine nationale de l'hygiène dentaire

Take pride in your profession

The Canadian Dental Hygienists Association has launched its National Communications Campaign during National Dental Hygiene Week, which took place **October 18 to 24, 1998**. This exciting campaign was featured in full-page ads in *Canadian Living*, *Coup de pouce*, *Homemaker's* and *Madame au foyer*.

All of this was supported by a media relations campaign on radio stations and in community newspapers across the country. Bilingual posters for your place of work, golf shirts and hand-out cards for you to give to your clients are available.

Don't miss out on the fun...
Promote your profession to the Canadian public.
Order your Yearly Promotional Items today!

We encourage you to order these great promotional items designed to help you make the most of National Dental Hygiene Week throughout the year and to pro-

mote your profession. Share the importance of your work with millions of Canadians while celebrating all you do to keep Canada's smiles healthy and beautiful!

Yes, I want to promote my profession!

PLEASE SEND ME:

- **Golf Shirt** __ Small __ Medium __ Large __ XL
Quantity _____ @ Price: \$21 each = \$ _____
- **Hand-out Cards** (packs of 200, bilingual)
Quantity _____ Packs @ Price: \$21 each = \$ _____
- **Posters**
Quantity _____ @ Price: \$1 each = \$ _____

SUBTOTAL \$

NON-MEMBERS — please multiply subtotal by two \$ _____

TOTAL COST OF ITEMS \$

SHIPPING — enter correct amount from table at right \$ _____

SUBTOTAL — add Total Cost of Items + Shipping \$ _____

7% GST (N° R106845233) \$ _____

8% PST — Ontario residents only (on Total Cost of Items line only) \$ _____

TOTAL ENCLOSED: \$ _____

SHIPPING AND HANDLING

Shipping charges are as follows:

Under \$25	\$5
\$25.01 - \$50	\$8
\$50.01 - \$100	\$12
Over \$100	\$15

For orders over \$250, call our toll-free number at 1-800-267-5235, extension 21, for applicable charges.

Paid by:

☐ Cheque ☐ Credit Card (☐ MasterCard ☐ Visa)

Cardholder name _____

Signature _____

Credit Card number ____/____/____/____

Expiry date __/__/__

Please include payment with your order.

Complete, clip and return to:

The Canadian Dental Hygienists Association
96 Centrepoin Drive, Nepean, Ontario K2G 6B1
Facsimile: (613) 224-7283



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION
L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRE

Ship to:

Name _____

Address _____

City _____ Province ____ Postal Code _____

Telephone _____ Facsimile _____



Semaine nationale de l'hygiène dentaire
National Dental Hygiene Week

Soyons fiers de notre profession

L'Association canadienne des hygiénistes dentaires a lancé sa campagne nationale de communication au cours de la Semaine nationale de l'hygiène dentaire, qui s'est déroulée du **18 au 24 octobre 1998**. Cette campagne palpitante a été véhiculée par des annonces en pleine page dans les magazines *Coup de pouce*, *Canadian Living*, *Madame au foyer* et *Homemaker's*.

De plus, une campagne nationale de relations médiatiques a été appuyée durant la Semaine nationale de l'hygiène dentaire en mettant en relief nos messages clés dans les journaux communautaires et à la radio. Des affiches pour les cliniques, des chemises de golf et des cartes de renseignements bilingues à distribuer à vos patients sont disponibles.

Soyez de la partie...

Faites la promotion de notre profession auprès du public canadien.

Commandez vos articles publicitaires pour l'année dès aujourd'hui!

Nous vous encourageons à commander ces superbes articles publicitaires qui vous aideront à promouvoir la Semaine nationale de l'hygiène dentaire ainsi que

notre profession. Célébrons ensemble notre contribution aux sourires magnifiques de nos patients.

Oui, je veux participer à la promotion de ma profession!

Faites-moi parvenir les articles suivants :

- **Chemises de golf** — petit — moyen — grand — très grand
quantité _____ à 21 \$ = _____ \$
 - **Cartons de renseignements** (en paquet de 200, bilingues)
nombre de paquets _____ à 21 \$ / unité = _____ \$
 - **Affiches publicitaires**
quantité _____ à 1 \$ / unité = _____ \$
- SOUS-TOTAL** _____ \$

NON-MEMBRES — veuillez multiplier le sous-total par deux _____ \$

COÛT TOTAL DES ARTICLES _____ \$

EXPÉDITION — inscrivez le bon montant du tableau de droite _____ \$

SOUS-TOTAL — Ajoutez le coût total des articles et les frais d'expédition _____ \$

TPS de 7% (n° R106845233) _____ \$

TVP de 8% — pour les résidents de l'Ontario seulement (sur le coût total des articles seulement) _____ \$

TOTAL CI-JOINT _____ \$

FRAIS D'EXPÉDITION ET DE MANUTENTION

Les frais d'expédition sont les suivants :

Moins de 25 \$	5 \$
25,01 \$ - 50 \$	8 \$
50,01 \$ - 100 \$	12 \$
Plus de 100 \$	15 \$

Pour les commandes de plus de 250 \$, veuillez composer le 1-800-267-5235, poste 21, pour connaître les frais applicables.

Méthode de paiement :

☐ Chèque ☐ Carte de crédit (☐ MasterCard ☐ Visa)

Titulaire de la carte _____

Signature _____

N° de carte ____/____/____/____

Date d'exp. __/__/__

Veuillez joindre votre paiement à la commande.

Compléter ce formulaire et le faire parvenir à :

L'Association canadienne des hygiénistes dentaires
96, promenade CentrepoinTE, Nepean (Ontario) K2G 6B1
Télécopieur : (613) 224-7283



THE CANADIAN DENTAL
HYGIENISTS ASSOCIATION

L'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

Livrer le matériel à l'adresse suivante :

Nom _____

Adresse _____

Ville _____ Province _____ Code postal _____

Téléphone _____ Télécopieur _____

CDHA Launches National Public Awareness Campaign

The Canadian Dental Hygienists Association launched its National Public Awareness Campaign beginning with its members in the September/October 1998, volume 32 no. 5 edition of *Probe*. *Probe's* cover issue featured the first campaign image that CDHA, our National Planning Committee and Delta Media, our public relations firm, have been working collaboratively to produce. This national campaign strategy is to be phased in over a three-year period.

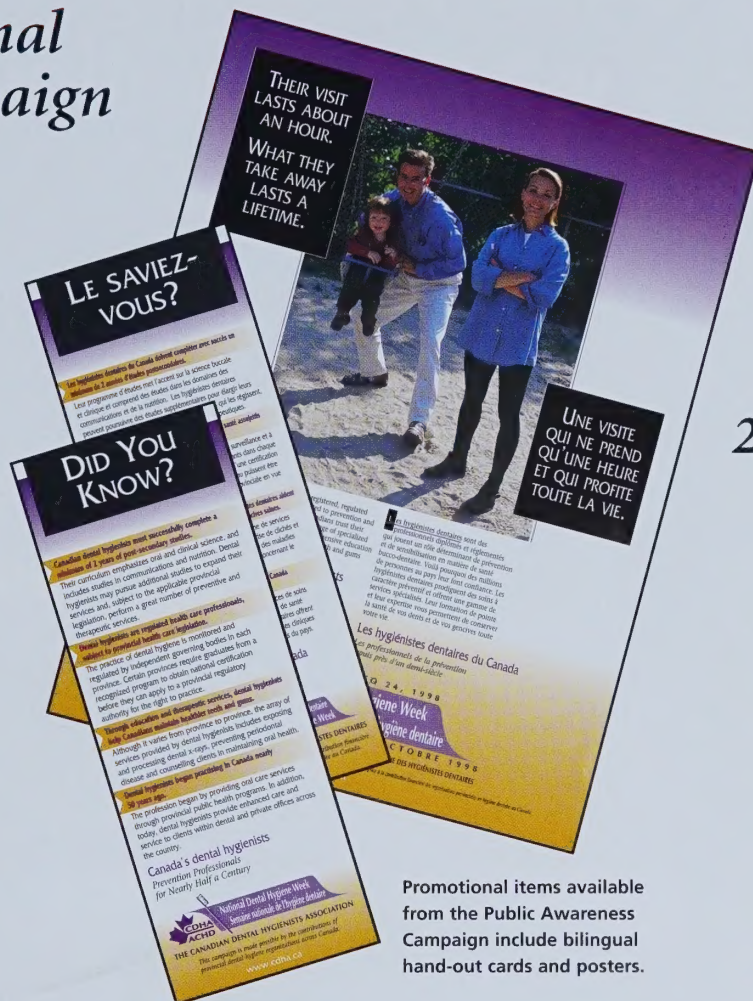
The main objective of CDHA's first campaign image — featuring a family and their relationship with their dental hygienist — was to raise widespread public awareness about dental hygiene as a *profession*, responsible for educating the Canadian public about, and practising preventive oral health care. In an effort to provide all dental hygienists with the tools necessary to promote the campaign, the profession and to raise public awareness, the CDHA provided members and non-members with a full-colour 17"x 22" promotional poster to display in their dental practice environment. On-going communication from our members indicate the campaign is well on its way to success.

The association also provided members with an "Order Form" featuring additional bilingual promotional items such as hand-out cards, embroidered golf shirts and posters. Each campaign promotional item has been specifically designed to promote the campaign and National Dental Hygiene Week throughout the year. The hand-out cards highlight the important work dental hygienists perform, and serve as useful communication tools for the dental hygienists to liaise with their patients. The embroidered golf shirts invite dental hygienists to celebrate the countdown to the "Fifty Years of Service to Canadians" together. The white golf shirts are embroidered with CDHA's logo and colours and the campaign slogan *Canada's Dental Hygienists — Prevention Professionals for Nearly Half a Century* — a slogan which can be seen throughout all promotional items.

The campaign officially kicked off during National Dental Hygiene Week from October 18 to 24, with full page ads in the October issues of *Homemaker's* and *Madame au Foyer* and the November issues of *Canadian Living* and *Coup de pouce*. We are pleased to provide each CDHA member with a souvenir copy of the October issue of *Homemaker's* with the compliments of the publication and a sample of the bilingual hand-out cards.



André Duval, RDH, displays CDHA's newly embroidered golf shirts.



Promotional items available from the Public Awareness Campaign include bilingual hand-out cards and posters.

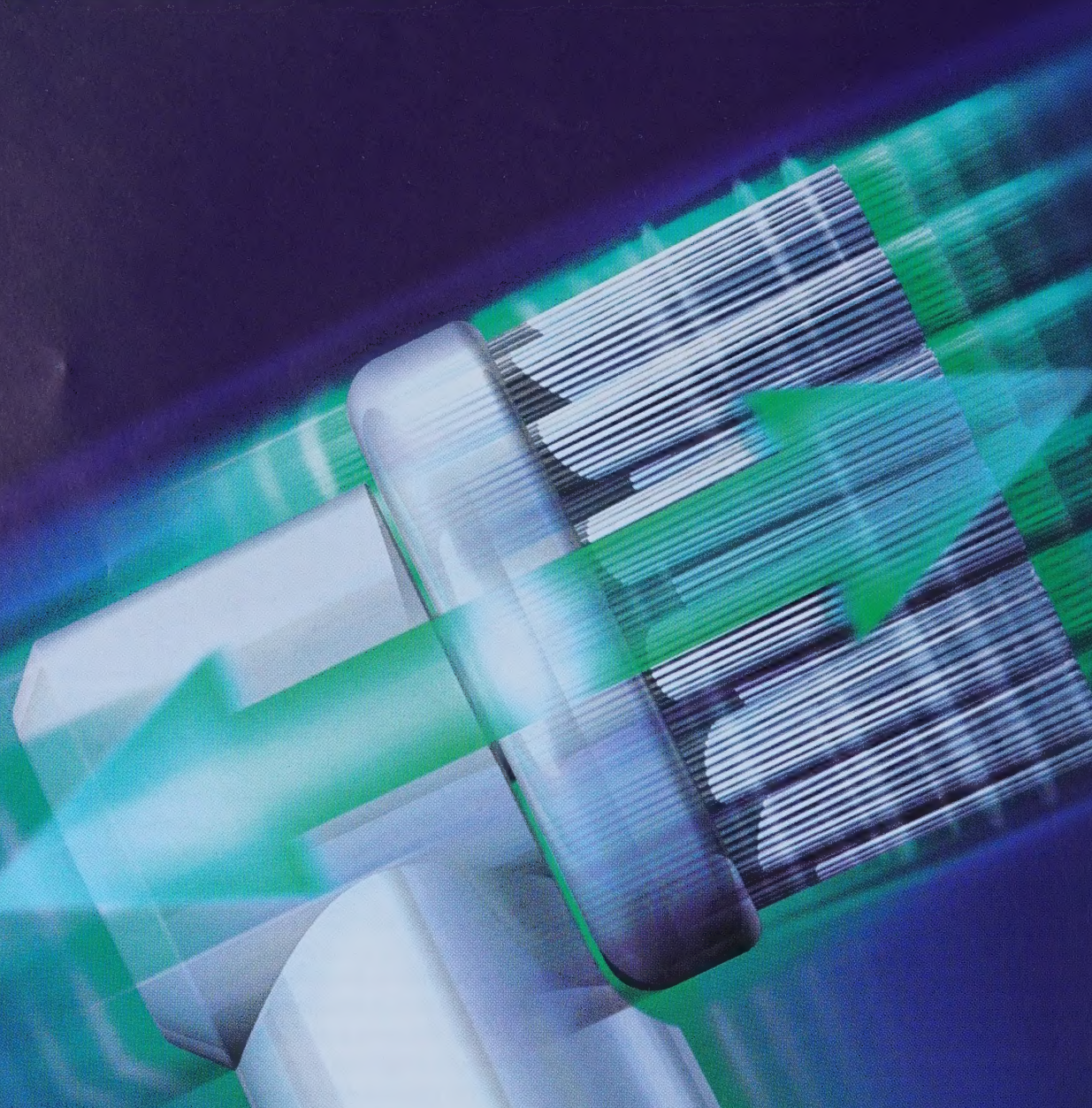
In addition to all these initiatives, the campaign was supported by a media relations initiative including public service announcements on radio stations and print articles about dental hygiene and preventive oral health for inclusion in community newspapers nationwide.

Although this is only a brief overview on the launch of CDHA's national campaign, we hope to have a full report on the campaign in the March/April 1999 issue of *Probe*. In the meantime, we encourage you to provide CDHA with any feedback you may have on the campaign. One of the greatest contributions you can make to your profession is to share your views and opinions to help CDHA develop a healthy and successful campaign.

We would also like to invite everyone to submit their success stories and initiatives undertaken during National Dental Hygiene Week, October 18–24, 1998 within their local community for possible publication in the March/April 1999 edition of *Probe*. Submissions should be received if possible, no later than January 15, 1999. Please send submissions to:

Probe
Canadian Dental Hygienists Association
96 Centrepointe Drive
Nepean, Ontario K2G 6B1
or via e-mail at ajw@cdha.ca

Deep cleaning just entered a whole new dimension.



1. Cronin M, et al. A 3-month clinical investigation comparing the safety and efficacy of a novel electric toothbrush (Braun Oral-B 3D Plaque Remover) with a manual toothbrush. *Am J Dent* 1998; in press. 2. van der Weijden GA, et al. A comparison of the efficacy of a novel electric toothbrush and a manual toothbrush in the treatment of gingivitis. *Am J Dent* 1998; in press. 3. Sharma NC, et al. A comparison of two electric toothbrushes with respect to plaque removal and subject preference. *Am J Dent* 1998; in press. 4. Driesen GM, et al. Cleaning efficacy of a new electric toothbrush. *Am J Dent* 1998; in press. 5. Ernst C-P, et al. Clinical plaque removing efficacy of a new power toothbrush. *Am J Dent* 1998; in press. Braun and Oral-B are registered trademarks of Braun AG and Oral-B Laboratories, respectively. sonicare is a registered trademark of Optiva Corp.
© 1998 Braun Inc.

Everything you know about
power-assisted plaque removal
is about to change.

Once you discover the unique, new plaque
remover engineered to clean effectively in
three brushing dimensions at once.



By combining sonic-
frequency pulsations with
ultra-speed oscillations, the
unique three-dimensional
brushing action penetrates

deep between teeth and below the gumline to
loosen plaque, then sweeps it away.

The result is a gentle, deep cleaning
that's superior to manuals at removing
plaque, reversing gingivitis and decreasing
bleeding.^{1,2} In fact, it's clinically proven more
effective than sonicare^{®3} and even the
Braun Oral-B ULTRA at removing plaque
interproximally and along the gumline.^{4,5}

No other plaque remover in the world
cleans like the Braun Oral-B 3D. Which is why
there's no better brushing method to
recommend to your patients. Not manual. Not
any other power-assisted brand.

The Braun Oral-B 3D: taking deep
cleaning to a whole new dimension.

For more information, please call
1-800-268-5217 or fax us at 905-712-5544
or write Oral-B Laboratories,
110 Matheson Blvd. West, Suite 210,
Mississauga, Ontario L5R 3T4

BRAUN

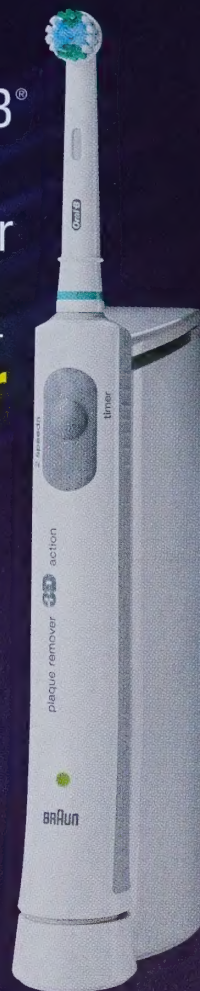
Oral-B

Introducing the Braun Oral-B[®] 3D Plaque Remover

Professional Trial Offer



Time Limited Order before January 31, 1999



To get yours, just fill out the information
below and mail today...

**Yes, please send me one Braun Oral-B 3D
Plaque Remover at the Special Trial Offer of \$29.95**

Name: _____

(Please note: we cannot deliver to P.O. boxes)

Address: _____

City/Town: _____

Province: _____

Postal Code: _____

Office Telephone: () _____

I am a: ☐ Dentist ☐ Hygienist

Type of Practice: _____

Licensing #: (Required to fill in) _____

☐ Enclosed is my cheque/money order payable to: **Braun Canada Ltd.**

Please mail to: Braun Canada Ltd. c/o 20 Torbay Road, Markham, Ontario L3R 1G6

☐ Please bill my credit card ☐ Visa ☐ Mastercard

Card #: _____

Expiry Date: _____

(All fields are required to be filled in.)

Name on Card: _____

Signature: _____

Limit one (1) unit at the Special Trial Offer of \$29.95. For ongoing dental professional pricing,
promotions and for patient units, please contact your authorized ORAL-B Sales Dental Distributor or
your local ORAL-B Account Manager.

Please allow 4-6 weeks for delivery

Offer expires January 31, 1999



professional fitness
dental hygiene strides
into the 21st century

10th Annual CDHA Conference

The Lombard Hotel, Winnipeg, Manitoba
June 18–20, 1999

1999 It's Time to Come Back to Winnipeg!

CDHA kicked off its first independently held conference in Winnipeg ten years ago. The Manitoba Dental Hygienists Association is proud to invite you back for a program designed to prepare you for the next millennium. Get ready to develop new insights as you experience the unique and innovative "theme-weaving" approach to our conference.

1999 It's Time to Boost Your Professional Fitness!

Challenge yourself to a professional fitness workout! Come stretch your mind, strengthen your body and feed your soul by exploring topics of current interests with your colleagues from across Canada.

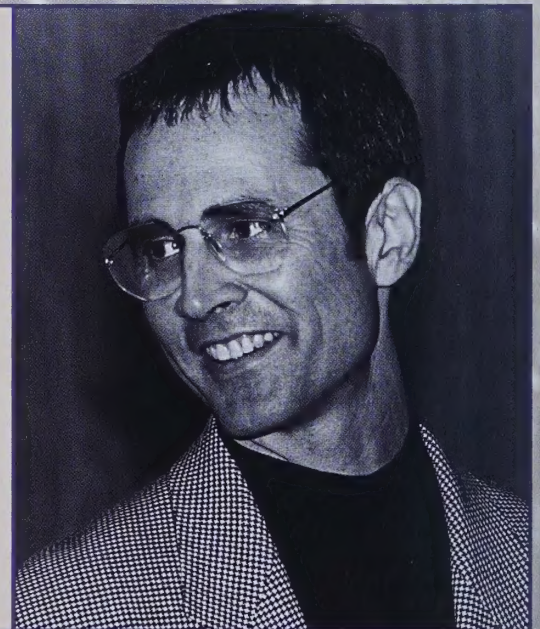
1999 It's Time to Get Motivated!

Steve Donahue, in addition to his opening and closing addresses, will attend the entire conference. He will weave the story of our conference into his presentations. You will hear the story and be the story, as Steve weaves a thread of continuity throughout our time together. This fascinating concept was pioneered by Steve and has received rave reviews from dozens of satisfied clients.

.....

Opening Keynote: *The Road to Personal Excellence*

In 1977 Steve Donahue attempted to cross the entire Sahara Desert overland from north to south. This harrowing journey would cover 2,000 miles of the most inhospitable terrain on earth. The lessons Steve learned from this attempt apply directly to our life journeys as well. On the road to our own personal excellence, we need to follow the rule of desert travel to achieve the balance necessary for personal and professional fulfillment. This exciting story will set the tone for our entire conference as we explore the many routes toward professional fitness.



Steve Donahue, Keynote Speaker
for CDHA's 10th Annual Conference

Friday, June 18th

PRE-CONFERENCE

- **Workshop**
"Achieving Balance in Our Lives" — Integrated Wellness Workshop, Peggy Kasuba, Massage Therapist, MTAM, CMTA member

CONFERENCE

- **Opening Ceremonies**
- **Keynote Address:** "The Road to Personal Excellence," Steve Donahue, Can Speak Presentations
 - "Women and Heart Health," Jo-Ann V. Sawatzky, B.N., M.N.
 - "The Changing Workplace — Mapping out the Hazards," Lynn Bueckert, Health Educator and Dr. Rob Chase, M.D.
- **Workshop**
 - "Your Practice Within — What's Your Theory?" Laura Lee MacDonald, Dip.D.H., B.Sc.D.(D.H.), M.Ed.(Health Promotion)
- **President's Reception:** Evening event

Saturday, June 19th

- "Through the Looking Glass: Dental Hygiene in the 21st Century," Karen B. Williams, Cert.D.H., B.S., M.S. (Dent Ed)
- "Who Says I Can't," Shep Shell, Past Chair, Canadian National Institute for the Blind (Manitoba Division)
- "Evidence-Based Dental Hygiene Care," Salme E. Lavigne, Dip.D.H., B.A., M.S.
- "A Practical Approach to Herbal Remedies," Meera B. Thadani, M.Sc. (Pharm) and R.L. Stephanchew, B.Sc. (Pharm)
- "Skin Cancer — An Undeclared Epidemic," Dr. R.P. Haydey, M.D., B.Sc. (Med), F.R.C.P. (Ca), DAB Derm
- **Evening Gala** — explore and dine at the historic Fort Gibraltar

Sunday, June 20th

- **Panel discussion**
 - "The Impact of Dental Hygiene Practice on your Health," Moderator: Sheryl Feller, Dip.D.H., B.A., M.B.A.
- **Community Connections**
- **Interactive Touch Technology Sessions**
- **Closing Address**
 - The Oasis Effect — A Time for Renewal and Celebration with Steve Donahue

Join us at the 10th Annual Conference in Winnipeg between June 18–20, 1999, where we will enhance our professional fitness by stretching our minds, strengthening our bodies and refreshing our souls. Sponsorship of the CDHA conference is provided in part by the Manitoba Dental Hygienists Association (MDHA).



The Local Organizing Committee looks forward to seeing you in Winnipeg for CDHA's 10th Annual Conference. Look for more program details in your next *Probe*.

Front Row: Carman Lanoway, Mickey Wener, Debbie Kaul

Back Row: Nancy Hughes, Gladys Stewart, Signe Jewett, Patti Moore, Kim Crawford, Carol Yakiwchuk, Harriet Rosenbaum



2nd CALL FOR ABSTRACTS

POSTERS/ORAL PAPERS/ TABLE CLINICS

The Canadian Dental Hygienists Association announces its 10th Annual Professional Conference,

Professional fitness: Dental Hygiene Strides into the 21st Century

You are invited to make submission of abstracts of free papers, posters and table clinic presentations which are related to any aspect of dental hygiene practice. You must notify CDHA of your intent to submit an abstract by **December 18, 1998**. Include your name and the title of the abstract with your notification.

Abstracts of free papers, posters and table clinics must be submitted by **February 5, 1999**. Items will be selected on the basis of quality. Authors will be notified of acceptance or rejection of abstracts by **March 5, 1999**. All selected abstracts will be published in the Conference Program.

Please consider submitting completed papers by **April 17, 1999** for potential publication in *Probe*, CDHA's Scientific Issue.



professional fitness
dental hygiene strides
into the 21st century

For additional information contact:

**CDHA Central Office,
96 CentrepoinTE Drive, Nepean, ON K2G 6B1
Telephone: (613) 224-5515**



Abstract Evaluation Procedures

Abstracts for papers, posters and table clinics will be accepted in two categories: (1) *research* and (2) *new programs*.

Abstracts representing **research** results will be evaluated according to the following criteria:

1. Are the purposes of the study identified?
2. Is the research methodology described?
3. Are the results reported clearly and concisely?
4. Are the conclusions supported by the findings?

Abstracts representing **new program** information will be assessed based on the following criteria:

1. Are the purposes of the program clearly stated?
2. Is the program's approach or design and/or key features clearly describe?
3. Is the program innovative?
4. Has the program been adequately evaluated or will it be?

Authors should submit one copy of the cover sheet and four copies of the abstract (Appendix A).

The cover sheet must include:

- a) Title of the paper, poster or table clinic.
- b) Name(s) of author(s), indicating who will present; addresses and phone numbers.
- c) Employment title or position of author(s)

APPENDIX A FOR ABSTRACT

CDHA's 10th Annual Professional Conference

Professional Fitness:

Dental Hygiene Strides into the 21st Century

Winnipeg, Manitoba • June 18-20, 1999

**Deadline date for receipt of Abstracts:
February 5, 1999**

Submission information

Author/First author: _____

Affiliation: _____

Address: _____

City: _____ Prov./State: _____

Postal/Zip Code: _____

Telephone: Bus. () _____

Res. () _____

Additional authors (names only): _____

It is understood that first authors named above will present the papers unless otherwise specified.

Choice of presentation format

- ☐ Oral presentation (free paper)
- ☐ Poster presentation
- ☐ Table clinic

Submission address

Abstracts should be submitted to:
**CDHA Central Office
96 CentrepoinTE Dr.
Nepean, ON K2G 6B1**

*Type perfect original of abstract here. Do not type beyond outline of box.
Include title, purpose, method and results.*

ANNUAL INDEX VOLUME 32

N° 1 JAN/FEB 1998, pages 1–40

N° 3 MAY/JUN 1998, pages 81–120

N° 5 SEP/OCT 1998, pages 157–196

N° 2 MAR/APR 1998, pages 41–80

N° 4 JUL/AUG 1998, pages 121–156

N° 6 NOV/DEC 1998, pages 197–236

SUBJECT INDEX

Abstracts

30, 71, 102, 147, 211

Annual Index, 221

Book Reviews

Urgent Care in the Dental Office, 103

Canadian Dental Hygienists Association

News 6–10, 48–52, 88–91, 127–129, 163–168, 205–207

1998 CDHA/ADHA Liaison Meeting in Ottawa, 88

Call for Nominations for CDHA President 2000–2001, 129

CDHA's Membership Drive, 169

Campagne d'adhésion de l'ACHD, 181

CDHA Attends ODQ Convention in Montréal, 127

CDHA's Executive Council Members Met for Fall 1997 Planning Session, 6

CDHA National Dental Hygiene Campaign Report/Rapport sur la campagne de l'ACHD, 172

CDHA Staff Receives Ten-Year Service Award, 91

Le Code de déontologie de l'ACHD, 89

Former President and CDHA Life Member Receives Bachelor of Dental Science, 128

Highlights of CDHA January 1998 Board Meeting, 48

Highlights from the 35th Annual Session of the CDHA Board of Directors, 163

Listerine and CDHA Partnership Initiatives, 165

Lynda McKeown new Vice-President for CDHA, 165

National Communications Program Report for the Dental Hygiene Profession, 88

New Director, Salme Lavigne, Joins the School of Dental Hygiene at the University of Manitoba, 6

Revision to the CDHA's *Code of Ethics* — June 1997/Changements au *Code d'éthique de l'ACHD* — Juin 1997, 8

Dalhousie University Holds its 28th Annual Table Clinic Awards, 129

A New Look for CDHA's Website..., 205

Salme Lavigne Joins CDHA as Vice-President, 206

New CDHA Board of Directors for October's 1998 Inaugural Session, 206

Diane McCambly and Laura MacDonald Receive CDHA's Distinguished Service Award, 207

New President and Vice-President for CDA, 207

Case Studies

76, 114, 178

Editorials

The Dental Hygienist and the Paradigm Shift, 43

Keeping Abreast of Health Care Changes, 83

A Scientific Publication for Dental Hygiene Research in *Probe*, 199

Education

Articulation Between Diploma and Baccalaureate Programs Studied, 69

CDHA Policy Framework for Dental Hygiene Education in Canada, 105

Continuing Education Calendar, 31, 54, 101, 148

Continuing Education Web Sites, 148

General Interest Books on Health Care, 103

Telehealth Technology: A New Medium for In-Service Education, 97

An Interdisciplinary Approach to Address Tobacco Issues in Elementary Schools Through Peer Training, 209

Ethics

Le Code de déontologie de l'ACHD, 89

Revision to the CDHA's *Code of Ethics* — June 1997/Changements au *Code d'éthique de l'ACHD* — Juin 1997 (*News*), 8

Information

Sun Life of Canada; Why Disability Insurance?, 16

Midland Walwyn; Estate Planning: Maximizing Savings and Minimizing Taxes, 37

Sun Life of Canada; How Much Insurance is Enough?, 95

CDA Member Bulletin: Dental Unit Waterlines, 108

Midland Walwyn; Asset Allocation, 152

Sun Life of Canada; Life Insurance, 153

Midland Walwyn; Turning Investment Anxiety into a Financial Opportunity, 112

Midland Walwyn and Merrill Lynch Combine to Create a Leading Financial Services Company in Canada, 191

Merrill Lynch; What to Expect in a Volatile Market, 229

Merrill Lynch; Financial Tip — Retirement Realities, 229

Canada Life Casualty; Group, Home and Automobile Insurance, 193

International Dental Hygiene

Canadian Delegates Attend IFDH Conference, 166

IFDH — 14th International Symposium on Dental Hygiene, 51

Registration Information for IFDH, 13

The Honduras Adventure, 145

Brush•Floss•Smile in Hungary, 208

Internet

Continuing Education Web Sites, 148

Internet Usage by Dental Hygienists, 66

Probing the Net, 31, 77, 104, 180, 225

Letter to the Editor

Bouffard, L., 149

New Products

3M Introduces Tie-on Masks with Anti-fog Feature, 32

Cetylite Industries' Zarosen Controls Patient Hypersensitivity, 75

Pill Not Puffer — First New Class of Asthma Drugs in Twenty Years, 32

Kodak Provides Alternatives, 32

Hu-Friedy Introduces ADVANTOUCH, 33

Hu-Friedy Ultrasonic Inserts, 33

OSHA Memorandum Expands Disinfectant Regulations, 33

New Children's Fever Medicine Launches in Canada, 111

Optiva Corporation Introduces a New Sonic Dental Hygiene Toothbrush — Sonicare, 111

A Smile is Forever, 111

Use of Colgate Total™ Is On the Rise, 149

Colgate Duraphat Fluoride Varnish, 230

Braun Oral-B 3-D Plaque Remover, 231

Oral Health Care

Dental Hygiene: Challenges and Opportunities for the Millennium, 27

Dental Unit Waterlines, 108

Feature Articles

Oral Management of the Cancer Patient (Part II: Chemotherapy), 58

221

Oral Health

Oral Health: Mozambique's Response to the Challenge, 23

Ready, Set, Go! — Part I — Oral Health Needs Assessment of Long-term Care Facilities and Nursing Homes in Perth County, 139

Oral Health Promotion

1997 National Dental Hygiene Week, October 20–26, 1997, 7

April is Dental Health Month/Avril, c'est le mois de la Santé Dentaire, 50

Dental Hygienists take on the Leading Cause of Oral Disease During April's Dental Health Month, 89

MDHA Takes Part in National Dental Hygiene Week October 20–26, 1997, 50

National Communications Program Report for the Dental Hygiene Profession, 88

Practice Profiles

Adair, Nancy, RDH, B.A., "Hygiene Excellence", 92

Coyle, Bruce, RDH, "Dental Hygienist Provides Mobile Dental Hygiene Services", 15

Heisterman, Barbara (Crosson), RDH, E.D.H., (*Practice Profile Update*), "Lest We Forget", 53

Sand, Mara, RDH, "Have Scalers, Will Travel: A Mobile Dental Hygiene Service for the Dentally Phobic, Mentally Challenged", 130

President's Message

Clarke, J., 3, 47, 87

Bowes, D., 123, 159, 203

Professional Development

1997 CDHA/Colgate Community Health Grant Recipient, 91

1998 CDHA/Colgate Community Health Grant, 168

Call for Applicants — CDHA Dental Hygiene Research Grant, 10

Call for Applicants — CDHA Graduate Student Research Award, 10

CDHA's 9th Annual Professional Conference — 1998, 34, 46, 70, 74, 115, 116, 184

CDHA's 10th Annual Professional Conference — 1999, 191

CHDA's Dental Hygiene Initiatives Incentive Grant, 48

CDHA Student Scholarship Program, 10

A CDHA Workshop *Motivation to Move: Tools for Professional Growth (News)*, 90

Continuing Competence: What Is It? How Can It Be Measured?, 142

DCF Funding Available to Dental Hygienists, 9

Funding for Dental Hygiene Research — CDHA Endowment Fund/Dentistry Canada Fund Grants, 9

Joanne Clovis Receives 1997 Research Grant, 9

Medline, 104

An Opportunity to Become Involved in Dental Hygiene Research, 77

Provincial Dental Hygiene

BC Government Passes New Adult Care Regulations, 49

Diane Skene Receives the Marilyn Pawluk Mabey Award, 166

MDHA Takes Part in National Dental Hygiene Week October 20–26, 1997, 50

NDHA Honourary Membership Award, 8

New Provincial Presidents — Coast to Coast, 166

ODA/CDA National Convention, 26, 79

ODHA — A Resource Guide for Dental Hygienists in Non-Traditional Settings, 89

L'OHDQ change de porte ! 128

SDHA Appoints its First Dental Hygiene Registrar, 49

Research Methodology

A Synopsis of Dental Hygiene in the Faculty of Dentistry, UBC, 51

Scientific

Osteoporosis and Alveolar Bone Loss, 11

Management of the Patient With Mental Retardation: A Case Report, 18

Prevention of Bacterial Endocarditis, 131

Self-Assessment Tests

Prevention and Health Promotion, 14

Prepared by the NDHCB, 56, 94, 138, 175, 212

Préparé par le BNCHD, 72, 96, 150, 175, 223

AUTHOR INDEX

Adair, N.: *Practice Profile:* Hygiene Excellence, 92

Adams, Kathleen: *Book Review:* Urgent Care in the Dental Office, 103

Barr Overholt, C.: *Abstracts:* Clinical Steps in Instrument Cleaning, 30; Bulimia Nervosa: Dental Perspectives, 71; Lidocaine Patches Control Pain in Hygiene Procedures, Serving as Option to Injections, 102; Can One Acquire Periodontal Bacteria and Periodontitis from a Family Member?, 147; Changes in Maternal Attitudes Towards Baby Bottle Tooth Decay, 211

Bowes, D.: *President's Message:* Respect, 123; It's the Intangibles That Count, 159

Campbell, P. (Regner): *Scientific:* Management of the Patient with Mental Retardation: A Case Report, 18

Carlson-Mann, L.: *Case Studies:* Removal of an Amalgam Tattoo Utilizing an AlloDerm Material, 76; The Use of Tongue Cleaners in the Treatment of Halitosis, 114; Leading Edge Treatment Using Emdogain™, 178

Clarke, J.: *President's Message:* The Truth is Out There...., 3; Form Follows Function, 47; Time for Reflection, 87

Coyle, B.: *Practice Profile:* Dental Hygienists Provides Mobile Dental Hygiene Services, 15

Craig B.: *Scientific:* Osteoporosis and Alveolar Bone Loss, 11

Dajani, A. S. et al: *Scientific:* Prevention of Bacterial Endocarditis, 131

Doucet, B.: *Feature Article:* An Interdisciplinary Approach to Address Tobacco Issues in Elementary Schools Through Peer Training, 209

Edgington, E.: *Telehealth Technology:* A New Medium for In-Service Education, 97

Forgay, M.: *Oral Health:* Mozambique's Response to the Challenge, 23

Goulding, M.: *Guest Editorial:* A Scientific Publication for Dental Hygiene Research in *Probe*, 199

Heisterman, B. (Crosson): *Practice Profile:* Lest We Forget, 53

Jenkins, J.: *Scientific:* Management of the Patient with Mental Retardation: A Case Report, 18

Johnson, P.: *Dental Hygiene:* Challenges and Opportunities for the Millennium, 27

Juhasz, M.: *Feature Article:* Brush•Floss•Smile in Hungary, 208

Kennedy, T.: *Why Disability Insurance?*, 16; *How Much Insurance is Enough?*, 95

Kittle, D.: *The Honduras Adventure*, 145

Loiacono, C.: *Scientific:* Management of the Patient with Mental Retardation: A Case Report, 18

Lunn, R.: *Oral Management of the Cancer Patient (Part II: Chemotherapy)*, 58

McKenzie, M. (Perno): *Guest Editorial:* Keeping Abreast of Health Care Changes, 83

Monguambe, A.: *Oral Health:* Mozambique's Response to the Challenge, 23

Newcombe, A.: *Editorial:* Good bye from P.E.L., or is it HELLO again?, 185

Perry, V.: *Ready, Set, Go! Part I — Oral Health Needs Assessment of Long-term Care Facilities and Nursing Homes in Perth County*, 139

Pimlott, J.: *Telehealth Technology:* A New Medium for In-Service Education, 97

Sand, M.: *Practice Profile:* Have Scalers, Will Travel: A Mobile Dental Hygiene Service for the Dentally Phobic, Mentally Challenged, 130

Spacie, P.: *Internet Usage by Dental Hygienists*, 66

Spencer, P.: *Guest Editorial:* The Dental Hygienist and the Paradigm Shift, 43

Talbot, L.: *Scientific:* Osteoporosis and Alveolar Bone Loss, 11

Wilson, M.: *Continuing Competence:* What Is It? How Can It Be Measured?, 142

Wolf, K.: *Articulation Between Diploma and Baccalaureate Programs Studied*, 69; *Probing the Net*: 31, 77, 104, 148, 180, 225

Zeimer, B.: *Feature Article:* An Interdisciplinary Approach to Address Tobacco Issues in Elementary Schools Through Peer Training, 209

EXAMEN AUTO-ÉVALUATION



Les questions de 16 à 20 ont été publiées dans l'édition Septembre/Octobre 1998 volume 32 numéro 5 de Probe .

Pour plus de renseignements, veuillez communiquer avec le Bureau national de la certification en hygiène dentaire (BNCHD), C.P. 58006, Orléans, Ontario K1C 7H4. Téléphone: (613) 837-2727 ou par télécopieur au (613) 837-6971.

223

21. Quelle est la raison la plus importante pour l'hygiéniste dentaire de remettre à plus tard le rendez-vous d'un client qui présente une lésion herpétique active?
1. Le traitement d'hygiène dentaire est trop douloureux.
 2. Il y a risque d'auto-inoculation.
 3. La préparation opératoire prend trop de temps.
 4. Il y a risque d'infection croisée du client à l'hygiéniste dentaire.
22. Grégoire, 4 ans, a un rendez-vous prévu pour l'extraction de la dent 5.1 qui a développé un abcès en raison d'un traumatisme antérieur. La dent ne lui fait pas mal pour l'instant, mais le souvenir du traumatisme et du rendez-vous dentaire déplaisant qui a suivi sont extrêmement stressants pour lui. Il demande à l'hygiéniste dentaire si l'intervention dentaire sera douloureuse. La mère de Grégoire a demandé à l'hygiéniste dentaire de rassurer Grégoire que l'intervention sera sans douleur parce qu'il deviendra hystérique et refusera le traitement nécessaire si on lui dit le contraire. Quels principes d'éthique, parmi les suivants, sont maintenant en conflit pour l'hygiéniste dentaire?
1. Autonomie et justice
 2. Bienfaisance et véracité
 3. Autonomie et véracité
 4. Justice et bienfaisance
23. Les deuxième molaires de Robert, 13 ans, viennent d'apparaître et les surfaces occlusales de ses premières molaires ont été restaurées. Quelle action, parmi les suivantes, serait la plus appropriée?
1. Appliquer le scellement des puits et fissures aux surfaces occlusales de toutes les deuxième molaires.
 2. Appliquer de l'acétate de chlorhexidine (Chlorzoin) sur toutes les surfaces occlusales.
 3. Recommander l'application personnelle à domicile d'une technique avec porte-fluor.
 4. Recommander des suppléments alimentaires de fluorure.
24. On a demandé à une hygiéniste dentaire de faire un exposé sur l'hygiène buccale à une classe de troisième année dans une communauté rurale isolée. En se basant sur un questionnaire de recherche de données que l'hygiéniste dentaire a envoyé à l'enseignant, il est évident que ce ne sont pas tous les enfants qui ont une brosse à dents ou l'eau courante. Quelle action, parmi les suivantes, serait la plus efficace?
1. Fournir des brosses à dents et l'enseignement relatif à un programme de brossage en classe.
 2. Enseigner que le rinçage après les repas aide à enlever les bactéries.
 3. Donner de la documentation à l'enseignant sur les maladies buccales et les techniques de brossage.
 4. Montrer un film sur l'enseignement de l'hygiène buccale et le laisser à l'enseignant.
25. Quel est le mécanisme d'évaluation de la qualité le plus efficace pour l'hygiéniste dentaire qui s'intéresse à l'autoévaluation?
1. Réagir aux sondages auprès des clients et à leurs plaintes.
 2. Assister à des cours réguliers d'éducation continue.
 3. Obtenir des certificats de l'association professionnelle nationale.
 4. Participer à un processus national de certification.
26. Les instructions du fabricant relatives à l'application d'agents de scellement des puits et fissures indiquent que la surface de la dent doit être complètement nettoyée et séchée après le préconditionnement à l'acide phosphorique. Quelle situation risque de se produire si on ne suit pas ces instructions?
1. La rétention de l'agent de scellement sera compromise.
 2. L'autopolymérisation ou l'accélération de l'amine ne se produira pas.
 3. Les régions défectueuses seront difficiles à dépister au moyen d'un explorateur.
 4. La résistance à la compression sera compromise.
27. L'utilisation à domicile d'un irrigateur buccal est contre-indiquée pour le client qui présente quel problème de santé parmi les suivants?
1. Une vulnérabilité à la bactériémie
 2. Une tuberculose active
 3. Une pneumonie virale
 4. Une infection des voies urinaires
28. Quelle manifestation, parmi les suivantes, est un effet secondaire potentiel des agents de blanchiment?
1. Déminéralisation
 2. Hypersensibilité dentaire
 3. Leucoplasie
 4. Récession gingivale
29. Quel énoncé décrit le mieux la position de la ligne tracée sur le modèle d'étude à utiliser comme guide pour la coupe et l'ébarbage du polyéthylène de polyacétate de vinyl lors de la fabrication d'un protecteur buccal?
1. 1 à 1,5 cm au-delà des tubérosités
 2. 1 à 1,5 cm avant les attaches des freins
 3. position apicale de 3,5 cm par rapport au rebord gingival
 4. 2,5 cm au-delà du palais dur
30. Un projet de campagne nationale d'hygiène dentaire a choisi comme cible un groupe de fumeurs de sexe masculin qui consomment de l'alcool de façon régulière. Quel sujet, parmi les suivants, serait le plus approprié pour une présentation sur la santé buccale destinée à ce groupe en particulier?
1. Les avantages d'une dentition sans taches
 2. La méthode d'autoexamen intrabuccal
 3. Les désavantages de l'usage du tabac en tant que facteur de risque primaire de la parodontite
 4. Les risques de la consommation d'alcool pour la santé

CONTINUING EDUCATION CALENDAR

An extraordinary event designed for today's success-oriented dental hygienist

1999 Pacific Dental Conference at Vancouver, February 18-20, 1999

Once again the time has come to participate in one of the best dental meetings in Canada. Featuring distinguished speakers and highlighting first rate topics suited to dental hygienists' needs and interests. Get an early bird's eye view at just some of the lineup. A compilation of both exciting new speakers and "back by popular demand" speakers.

224

FEBRUARY 18-20, 1999

RELAX, YOU MAY ONLY HAVE A FEW MINUTES LEFT!

Presented by Loretta LaRoche

Most of us are in a constant state of crisis as around us everything gets more "awful" and "catastrophic" throughout the day. This mentality often leaves us crazed and humourless. Discover how to find "the bless in the mess" and how to stop making life a stress rehearsal.

COMMON SENSE FINANCIAL PLANNING

Presented by David Chilton

A light-hearted look at financial planning from the "Wealthy Barber" himself. David takes the intimidation out of financial planning by wrapping it up in humour and everyday examples. The program is not full of new techniques, complex strategies, or get-rich-quick (or even semi-quick) schemes. Instead it focuses on the financial planning basics that, over time, have proven to be most effective.

THE ROLE OF DENTAL HYGIENISTS IN ORAL CARE OF PERSONS WITH DISABILITIES

Presented by Lynn Frandsen, RDH, B.S.

This presentation is designed to provide information on the importance of oral care for persons with developmental and acquired disabilities. A model curriculum and sample forms and videotapes showing tips on patient management will be provided. Information will be included about BC's new "Residential Care License".

ANTIBIOTICS IN DENTISTRY

This chairside-friendly review will discuss the changing antibiotic options in dentistry for acute infections, prophylaxis and chronic periodontal disease.

MEDICINE AND DENTISTRY: THE DISEASES THAT AFFECT DENTAL CARE

A review of the most common medical problems affecting the chairside delivery of dental care, including local anesthetic options and analgesic selections made by the dentist relative to hypertension and cardiovascular disease, potential bleeding disorders, diabetes mellitus, corticosteroid therapy and transplant patients. Learn the 70 most commonly prescribed medications and their impact on dental therapy.

ADVANCED SOFT TISSUE MANAGEMENT: THE MEDICAL AND PERIODONTAL PROBLEM PATIENT

Presented by Robert Fazio, DMD

This presentation is for the dentist and the dental hygienist well versed in soft tissue management. The focus of this seminar will be the problem patient. Discussion will also address patients with rapidly progressive periodontal disease or concurrent medical diseases which directly affect the delivery of care, the choice of local anesthetics, and analgesics and the role of antibiotic therapy.

SEX AND THE SINGLE NEVUS

Presented by John Svirsky, DDS, M.Ed.

This entertaining and informative session will dramatize oral diseases encountered in our dental practice. With an emphasis on disease management, this program will include handouts reviewing oral diseases and commonly prescribed medications for the dental patient's treatment. Everything you wanted to know about oral pathology and oral medicine or everything you have forgotten since dental school will be covered in vivid technicolour!

Pacific
Dental
Conference
at Vancouver

For more information:
e-mail: marilyn@cdsbc.org
Tel: 604-714-5303
Fax: 604-736-3645

PROBING THE NET

By Karen Wolf, Dip.D.H.

I just love this time of year! It is full of activity, friends and family (which has its pro's and con's) but most of all it is filled with giving. So at this time I wish to send to each of you a Christmas greeting that the joy and peace of Christ may come to every heart and home.

If you have time over this hectic season I have three interesting sites you can use now or in the future as a resource for patient education literature as well as for personal development. Our first site is courtesy of Proctor and Gamble from their "Dental Resource Net", "Patient Education" section. At this site you will find topics entitled "Partners for Better Oral Hygiene", "Care to Share", "Cosmetic Dentistry", "Essential Care", "Implants", "Wisdom Teeth", "Sensitive Teeth", and more. Each topic runs to approximately one page of printed text. This information could be used for lectures in nursing homes or as a part of a package of oral care products to provide to youth shelters or single mothers. Be creative!!! The address is <http://www.dentalcare.com/soap/patient/patient.htm>

The American Dental Hygienist Association (ADHA) has excellent patient education pages at their "Consumer Information Center". Here you will find an online (but easily printed) brushing and flossing poster, lifetime of smiles brochure, tooth whitening fact sheet, oral cancer news, a perio report card and much more. The report card is full of information about periodontal disease and includes tips for clients of all ages, warning signs of the disease, and helpful hints about nutrition. At the end of the literature section is a progress report.

While you are at this address you should also check out National Dental Health Month activities found in the "RDH Resource" site back at the ADHA home page. The ADHA home page address is <http://www.adha.org>

"What is there to eat?" is a question anyone who lives or works with children will hear more than once in their lifetime. In searching the web for nutritious snacks I came across this site from Disney no less. While not all the snacks are sugar-free, this site has some great ideas to pass on to parents of young patients to assist them in their quest for a healthy lifestyle for their children. All children/teens want junk food or at least what they believe to be "out-of-the-ordinary" food. At this site you will also find recipes for homemade versions of granola bars, cheese straws and more. The address is http://family.disney.com/Categories/Food/Feature/family_0105_02/famf010502_snattack/famf010502_snattack.html

This site will come onto your screen as not found and there will be a box where you can search disney.com. Just type in the box "healthy snacks", then click on "Go". You will retrieve about 34 results, scroll down to the end for one titled "Family Fun Magazine-Healthy Snacks". You will have finally arrived! I apologize for the round-about way to access this site. I truly do not understand why the address will not work by itself. Oh well, enjoy!!

Keep those cards and letters coming folks, I love to hear from you. Address your e-mail to Karen Wolf at rwolf@auracom.com



Karen (Malloy) Wolf graduated from Dalhousie University's School of Dental Hygiene in 1984. She has practiced in general private practice for the past 14 years and continues to do so four days a week. She taught Radiology at the Nova Scotia Institute of Technology on a part-time basis for two years. She has delivered oral health presentations to local daycare centres, schools and Brownie groups. She is married with three children.

225

SELF-ASSESSMENT TEST (continued from page 212)

Answer Key and Rationale

(The correct answer is indicated in parenthesis)

- 21.(2) Autoinoculation is possible from instrumentation.
Universal precautions will prevent cross infection.
- 22.(2) Force, coercion, or manipulation must not be used to obtain client consent. Truthful information must be given. The dental hygienist actively promotes improvement of the oral status of the client's oral health. Geoffrey is too young for autonomy to be an issue.
- 23.(1) Overall caries susceptibility is an indication of use. Newly-erupted teeth in these cases should be sealed immediately.
- 24.(1) This course of action recognizes the cultural, or socioeconomic diversity and the values associated with health and disease within a defined culture and subculture, (if resources aren't available either modify program or provide resource).
- 25.(1) Client questionnaires are an inexpensive way to assess quality and should be considered when designing a quality assurance program.
- 26.(1) Rinsing of the phosphoric acid is important as residual acid interferes with the bonding of the sealant. Drying is critical because moisture interferes with retention of the sealant in the fissure.
- 27.(1) Irrigation requires premedication in clients susceptible to the effects of bacteremia.
- 28.(2) Side effects of bleaching agents can include tooth hypersensitivity.
- 29.(2) Cutting along the line ensures that the mouthprotector does not impinge on the muscle attachments in the oral cavity.
- 30.(2) Oral cancer is two and a half times more prevalent in males and there are twice as many deaths in males than in females; it affects older men, and heavy users of alcohol and tobacco.

New Probe "Scientific Issue" Advisory Group

The Advisory Group members for the new "Scientific Issue" of *Probe* are as follows:

226



Marilyn Goulding

Marilyn Goulding,
MO.Sc., Scientific Editor

Our former editor is back for a second run! Marilyn has been busy since she left *Probe*, completing a Masters in Oral Sciences at the Departments of Periodontics and Biosurfaces/ Biomaterials at the State University of New York (SUNY) Buffalo. She is the first dental hygienist to graduate from the program.

Marilyn is an alumni of the Dental Hygiene Program at the University of Alberta and has Bachelor of Science Degrees in Dental Hygiene Education and Clinical Research, from Empire State College. Marilyn's career, to date, has been primarily in clinical practice, dental research and education. She is the former Research Coordinator for Commercial Clinical Studies at SUNY Buffalo and works presently as an independent research consultant as well as a faculty member at Niagara College in Welland, Ontario. Marilyn has partnered in numerous research projects in the field of periodontal diagnostics and therapeutics and has presented her work in Canada, the U.S. and further afield. This experience serves her well in her duties with the new *Probe* "Scientific Issue". Marilyn has been honoured to receive the Canadian Dental Hygienists' Association Award for Distinguished Service and looks forward to once again serving her peers in this new position.



Joanne Clovis

Joanne Clovis,
Dip.D.H., B.Ed., M.Sc.

Joanne Clovis is a graduate of the University of Alberta and holds a Diploma in Dental Hygiene and the degrees of Bachelor of Education and Master of Science. Her professional career has spanned a broad range of environments in private practice, public health, public and dental hygiene education, administration, and government

consulting. She has been an active member of the Canadian, Alberta, and Nova Scotia Dental Hygienists' Associations and was project director the CDHA's highly successful "Smile...for Life" project. She was a member of the federal government Working Group on the Practice of Dental Hygiene in Canada and the Steering Committee on Oral Health Promotion.

Joanne is currently an Associate Professor of Dental Hygiene in the School of Dental Hygiene at Dalhousie University. Her research interests are varied and include the acceptance and use of primary preventive strategies and therapeutics; dental hygiene education; and health program planning, evaluation, and legislation. At present she is a Ph.D

candidate, completing her dissertation research part-time while continuing her teaching primarily in the area of community health.

Her contribution to dental hygiene has been recognized by the award of honorary Life Membership in The Canadian Dental Hygienists Association and a gold medal for community service by the Alberta Dental Hygienists Association.



Bonnie Craig

Bonnie J. Craig,
Dip.D.H., M.Ed., RDH

Bonnie Craig is a dental hygiene graduate from the University of Manitoba and holds a Masters Degree in Education from Simon Fraser University. Bonnie, an Assistant Professor in the Faculty of Dentistry at The University of British Columbia, is the Director of the Dental Hygiene Degree Completion Program. She has been involved in dental and

dental hygiene education in B.C. for many years and continues to practice clinically one day a week.

Bonnie is involved in two areas of clinical research. She participates on an interprofessional team with a rheumatologist, a nurse and an occupational therapist who are all studying people with rheumatoid arthritis. Her research focus is the oral manifestations of rheumatoid arthritis and the immuno-suppressive medications prescribed to treat this disease. Her second research focus is the correlation of alveolar bone loss by the presence of bone collagen cross-links in gingival crevicular fluid. Bonnie presented findings from both her research interests at the IADR meeting in June 1998.

Recently, Bonnie initiated a distance education project at UBC that involves the redevelopment of three dental hygiene courses into Web-based, CD-ROM formats to enhance the access of dental hygienists to advanced dental hygiene education. The first re-formatted course, Oral Pathology, will be on-line in August 1999.

Bonnie is currently CDHA's representative to the Commission on Dental Accreditation of Canada and is the Chair of the Allied Dental Education Programs Committee. She has held numerous positions in the provincial and national professional associations.



Bob Dunford

Bob Dunford,
B.Sc, M.Sc.

Bob Dunford is currently a member of the Biometrics Group of the Periodontal Disease Clinical Research Center of (SUNY) Buffalo. He is a master statistician and consults regularly on appropriate statistical methodology, study design, power and sample size. Mr. Dunford has a wealth of teaching experience and has co-authored literally hundreds of papers in the biomedical,

allied dental and epidemiological fields. He has also been active in a number of large field treatment studies. Bob is well known to CDHA as our statistical consultant for the original *Probe* and now stands as our statistics advisor and reviewer for the new *Probe* "Scientific Issue." Bob's constructive manner in providing commentaries to authors is aimed at ensuring the focus and credibility of each paper. We are fortunate to have someone so dedicated to good science and supportive of the efforts of dental hygiene on our committee.



Patricia M. Johnson

Patricia M. Johnson,
Dip.DH, B.Sc.(DH), M.Sc., Ph.D.

Pat graduated in dental hygiene from the University of Toronto. She holds a Masters and a Ph.D. in Community Health (Health Policy and Economics). President of PMJ Consultants, a research and consulting company, her projects specific to dental hygiene include the development of a 19-nation longitudinal database, national labour force studies

(Canada and South Africa), the group assessment component of the CDHO Quality Assurance Program (Ontario), and a public opinion survey regarding independent dental hygiene practice. Recently retired as a professor at Seneca College's Dental Health Programs, Pat has also worked as a clinician in both periodontal and general practices.

Pat has served on numerous advisory boards, including the federal study on Planning Dental Human Resources, the federal Working Group on the Practice of Dental Hygiene, the Community Dental Health Research Unit Advisory Board (University of Toronto), and The Canadian Dental Association Professional Resources Planning Committee. A Past President of the International Federation of Dental Hygienists, the Canadian Dental Hygienists Association and the Ontario Dental Hygienists Association, Pat has been honoured with Life membership in all three organization.

Pat has given numerous invited presentations, both in Canada and abroad. Her publications are extensive and include journal articles, reports, monographs and book chapters. In addition to her involvement with this new Canadian publication, she serves on the Editorial Review Board for *Contact International*, the scientific publication of the International Federation of Dental Hygienists. Pat enjoys travelling, sailing, reading and weekends at the cottage with her family.



Laura MacDonald

Laura MacDonald,
Dip.D.H., B.Sc.D., M.Ed
CDHA Editorial Board Liaison

Laura MacDonald, a 1981 graduate of the University of Manitoba School of Dental Hygiene has been a dental hygiene educator with her *alma mater* for the past 14 years. She completed a B.Sc.D.(D.H.) at the University of Toronto Faculty of Dentistry in 1983 and a Masters in Education at the

University of Manitoba Faculty of Education. At the national level, Laura is currently a member of the National Dental Hygiene Board Committee, the Dental Hygiene Educators Canada Steering Committee and an Editorial Board Member with *Probe*. Provincially, she is the Vice-President of the Manitoba Dental Hygienists Association.

Laura has broadened her teaching talents beyond the field of dental hygiene education to become involved with the University of Manitoba,

University Teaching Services. She has presented several publications at conferences and has contributed a chapter on health and wellness to *Dental Hygiene, Theory and Practice* by Darby and Walsh.

Laura lives with her husband, Glen, and three children in an older neighbourhood of Winnipeg, Manitoba. They remain actively involved in their community — as Laura says "a 1914 home is a home requiring loving attention." In 1998, she was the recipient of the Wood Award for Teaching Excellence from the Association of Canadian Faculties of Dentistry and has recently received the 1998 Canadian Dental Hygienists Association Distinguished Service Award.



Professor J.F.L. Pimlott

Professor J.F.L. Pimlott
Dip.D.H., B.Sc.D., M.Sc.

Janice Pimlott is a Professor and Director of the Dental Hygiene Program, Faculty of Medicine and Oral Health Sciences, University of Alberta. Professor Pimlott teaches in and coordinates several academic programs including Dental Hygiene Theory, Periodontics, and an Inter-disciplinary Team Development course

with health sciences students. Professor Pimlott graduated from the University of Toronto with a Diploma in Dental Hygiene, a Bachelor of Science in Dentistry and a Master of Science. She was formerly a faculty member of the School of Dental Hygiene at the University of Manitoba. Professor Pimlott is keenly interested in dental research and has many publications to her name. She is active in presenting continuing education courses and research presentations at provincial, national and international levels.



Salme Lavigne

Salme Lavigne
Dip.D.H., BA, MS

Salme is Associate Professor and Director of the School of Dental Hygiene, Faculty of Dentistry, University of Manitoba. She holds a Diploma in Dental Hygiene from the University of Toronto, a Bachelor of Arts from Lakehead University and a Master of Science in Dental Hygiene from the University of Missouri in Kansas City. Additional credentials

include an advanced certificate in periodontal therapy and certification in both local anesthesia and nitrous oxide administration. In addition to her role as educator and administrator, Salme practices dental hygiene one day per week in the graduate periodontics program at the University of Manitoba.

Salme has served both as a CDHA director and an ADHA delegate. She is currently the Councillor for the section on Dental Hygiene Education for the American Association of Dental Schools; the educator representative on the Commission on Dental Education for Canada and is incoming Vice-President of CDHA. Salme's research interests are primarily in periodontics and she has been published in several journals including the *Journal of Dental Research*, *International Journal of Oral Maxillofacial Implants*, *International Journal of Osteoarcheology*, *Journal of Dental Hygiene*, *Journal of Allied Health* and the *Journal of Dental Education*. Salme has authored two textbook chapters including the "Assessment" chapter in the recently released *Nonsurgical Periodontal Therapy* by Kathleen Hodges. She has also just completed the "Periodontics" chapter in the soon to be released new text *Saunders's Review of Dental Hygiene* by Nelson.

"12 Million investors, that's a lot of trust."



Over 12 million investors like you share the strength of Fidelity Investments. In fact, we've been helping investors achieve their goals for over 50 years. As the recommended financial advisor to the CDHA, Merrill Lynch Canada Inc. draws upon Fidelity's global presence and full range of mutual funds to help meet all your investment needs.

Call **1 800 563-6523** for details on how this partnership can benefit you.

Merrill Lynch Canada Inc. is a member of the Canadian Investor Protection Fund.

Read the important information in a fund's prospectus before investing.



WHERE 12 MILLION INVESTORS PUT THEIR TRUSTSM



Merrill Lynch

In August 1998, Midland Walwyn and Merrill Lynch merged to create a leading financial services company in Canada now called Merrill Lynch Canada Inc.

What to Expect in a Volatile Market

Mention "volatility" and a lot of investors begin to get nervous. Stock values have been dropping recently and the market is jittery and unpredictable. Some financial pundits are saying this is finally the end of the fabulous bull market of the 1990s.

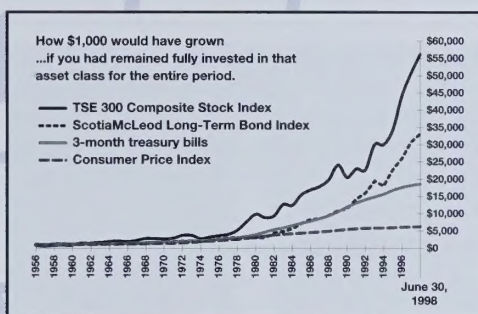
Given the uncertainty of this volatile market, some investors may be tempted, in the short term, to sell their equities, and hunt for a safe haven for their money. But before you call your investment professional, consider this: the stock market has plunged plenty of times before, and in every case it has bounced back, often to higher levels than before the decline.

1. On October 27, 1997, The TSE-300 (a Toronto Stock Exchange index) lost 6 percent of its value. By November 27, it was down 10 percent from the peak. However, the market took only five months to recover completely.
2. The TSE-300 lost at least 15 percent of its value no fewer than six times between September 30, 1978 and September 30, 1997. In every case there was a complete recovery.
3. The TSE-300 lost 45 percent of its value between July 16, 1981 and July 8, 1982. Yet even this loss was regained in less than four years.

Stocks are riskier investments than bonds or cash, especially in the short run. But over the long term, stocks have outperformed other asset categories. Despite all the dips in the stock market over the last forty years, those with the patience to stay fully invested in the stock market, even during bad times, were usually better off in the long run.

Here's an example. If you had invested \$1,000 in 1956, as of June 30th, 1998 it would be worth:

- \$56,203.90 if you had invested in the TSE-300
- \$33,130.19 if you had invested in bonds*
- under \$20,000 if you had invested in three-month treasury bills.



No one knows what will happen in the future, but we do know what has happened in the past. Of course, your strategy at a time like this depends on how old you are, how long you plan to invest, how quickly you want your money to grow, and how well you sleep at night when the market is in turmoil. Your investment professional can help you to review your investment strategy to make sure it suits your personality and goals in these turbulent times.

*Source: ScotiaMcLeod Long-Term Government Bond Index

Merrill Lynch Financial Tip — Retirement Realities

Your retirement years should be worry-free. They are an opportunity to enjoy the fruits of your labour, and the precious gift of time. During your prime working years, you must make plans to save for your retirement, and the financial choices and priorities you make during this time will dramatically impact your retirement plans. The decisions you make today will affect your security and lifestyle tomorrow.

Registered Retirement Savings Plans (RRSPs) are the key to controlling your financial future. Using an RRSP helps you to enjoy the long-term benefits of accumulating wealth free from taxation. Today, it is a well-accepted financial planning priority that every Canadian taxpayer have an RRSP. After all, did you realize that, for many of you, approximately one-third of your lives will be spent in retirement?

By increasing RRSP contribution limits and establishing the carry-forward provision, the Government of Canada is encouraging individual Canadians to prepare for a self-sufficient retirement. The government is sending us a message, and we must heed it: more and more, the onus is on the individual to plan for their retirement income.

A comfortable lifestyle in retirement doesn't happen by accident. It requires a commitment to planning and saving. Ongoing contribution to RRSP savings and making sound investments are not tasks you should embark on alone. With sound advice from a financial consultant you should be able to look into the future with the peace of mind that you will be secure in your retirement years.

For more information, please call your Merrill Lynch CDHA Program Manager at: 1-800-563-6623

NEW PRODUCTS

Colgate Duraphat® Fluoride Varnish Vernis au fluorure Colgate Duraphat®

New from Colgate

Colgate Duraphat® is a 5 percent sodium fluoride varnish containing 22,600 ppm fluoride in a resin base. Colgate Duraphat® is quickly and easily applied and sets rapidly, resulting in patient comfort and acceptance.

HOW DOES COLGATE DURAPHAT® WORK?

- Uptake of fluoride into the tooth
- Globular, calcium fluoride-rich particles accumulate on tooth surfaces, forming a dense layer, followed by expected tubule obturation^{8, 10}
- Globules form a fluoride reservoir available to help prevent demineralization and to help promote remineralization¹¹

For more information on Colgate Duraphat® call 1-800-225-3756.

Une nouveauté de Colgate

Colgate Duraphat® est un vernis au fluorure de sodium 5 p. 100 contenant 22,600 ppm de fluorure dans une base résineuse. Il permet une application facile et rapide. En outre, comme il prend rapidement, Colgate Duraphat® est un produit confortable qui est bien toléré par le patient.

COMMENT FONCTIONNE COLGATE DURAPHAT®?

- Duraphat fait pénétrer le fluorure dans les dents
- Une couche dense de particules globulaires riches en fluorure de calcium, se fixe sur la surface des dents, suivie de l'obturation prévue de la tubule dentinaire^{8, 10}

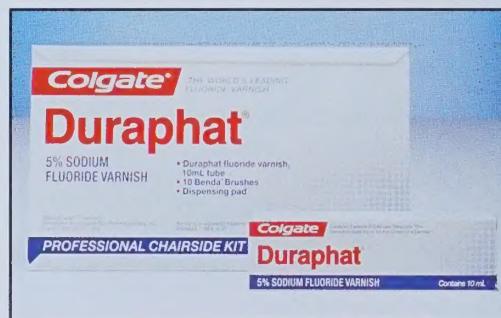
- Ces globules agissent comme une réserve de fluorure qui contribue à prévenir la déminéralisation et à promouvoir la reminéralisation¹¹

Pour plus de renseignements, veuillez composer le 1-800-225-3756.

*TM (Reg'd) Colgate Palmolive Canada Inc.

References

- Papas A.S., Clark R.E. Accrued desensitization with repeated Duraphat treatment of Dental hypersensitivity. *J Dent Res.* 1995;74 (Special Issue):134.
- Rølla G., Øgaard B., DeAlmeida Cruz R., Topical application of fluorides on teeth. New concepts of mechanism of interaction. *J. Clin Periodontol.* 1993;20:105-108.
- Øgaard B., Seppä L., Rølla G., Professional topical fluoride applications — clinical efficacy and mechanism of action. pg. 18.



Colgate
Duraphat®
Fluoride
Varnish

Vernis au
fluorure
Colgate
Duraphat®

CDHA/COLGATE COMMUNITY HEALTH GRANT

OBJECTIVE

To support Canadian dental hygienists engaged in community health project that promote oral health and wellness.

GENERAL DESCRIPTION

A grant of \$3,000 will be awarded annually to a Canadian dental hygienist who presents a new community health initiative that is not associated with any other dental health delivery program. Preference will be given to community projects that are relevant to the discipline of dental hygiene and the mission and objectives of the CDHA. National Dental Hygiene Campaign projects/initiatives are not acceptable for this grant.

ELIGIBILITY

Grant applicants must be academically qualified Canadian dental hygienists who are Active or CDHA Life members in good standing.

APPLICATION DEADLINE

The deadline for applications is **Friday, December 18, 1998.**

DURATION

The recipient of the grant will be notified by **Friday, March 5, 1999** and will have one year to implement the initiative. At the end of the first year of the initiative, a written report is to be submitted

to CDHA. The CDHA reserves the right to be the first to publish all works generated as a result of the initiative. A successful applicant may re-apply for a second consecutive year. Second applications will be considered on the same basis as any first applications. No more than two awards will be offered for any one initiative.

For more information or to receive an application form please contact:

The Canadian Dental Hygienists Association
96 Centrepoin Drive
Nepean, ON K2G 6B1

Telephone: (613) 224-5515
Fax: (613) 224-7283



Braun Oral-B Extends It's Line of Electric Toothbrushes With Braun Oral-B 3D Plaque Remover

The following information is reprinted in part from a recent Braun Oral-B news release.

Early this fall, Braun Canada extended its line of electric toothbrushes with the "Braun Oral-B 3D Plaque Remover" featuring a new brush head motion that brushes teeth in three dimensions to clean teeth better above and below the gumline.

The new to-and-fro motion of the 3D Plaque Remover has been added to the standard oscillating side-to-side motion of Braun Oral-B's other electric toothbrushes so that more plaque can be loosened and swept away.

The brushheads with the 3D Plaque Remover are also new, with a centre core of blue FlexiSoft bristles. These give way in the course of regular toothbrushing, to better surround and clean each tooth. The softer new centre extends the reach of the outer green indicator bristle tips, improving cleaning in between teeth.

Also of interest is the built-in pressure sensor that stops the to-and-fro motion of the 3D brush head when too much pressure is applied, eliminating potential tooth and gum abrasion.

Other product features include a toll-free phone number for customer service printed right on the toothbrush handle, a non-slip grip and new rollover protection on the handle, two-speed control on the deluxe model, and a smarter built-in timer that will continue to track two-minute brushing time, even when toothbrushing is briefly interrupted.

As of September 1998, the Braun Oral-B 3D Plaque Remover could be purchased at all major department stores, mass merchants and drug stores across Canada. For more information, please call 1-416-960-5100.

L'éliminateur de plaque 3D Braun Oral-B

Les renseignements suivants proviennent d'un communiqué de presse de Braun Oral-B.

Braun Canada a augmenté sa gamme de brosses à dents électriques avec un nouveau modèle appelé « l'éliminateur de plaque 3D Braun Oral-B » qui innove avec un mouvement qui brosse les dents dans trois directions.

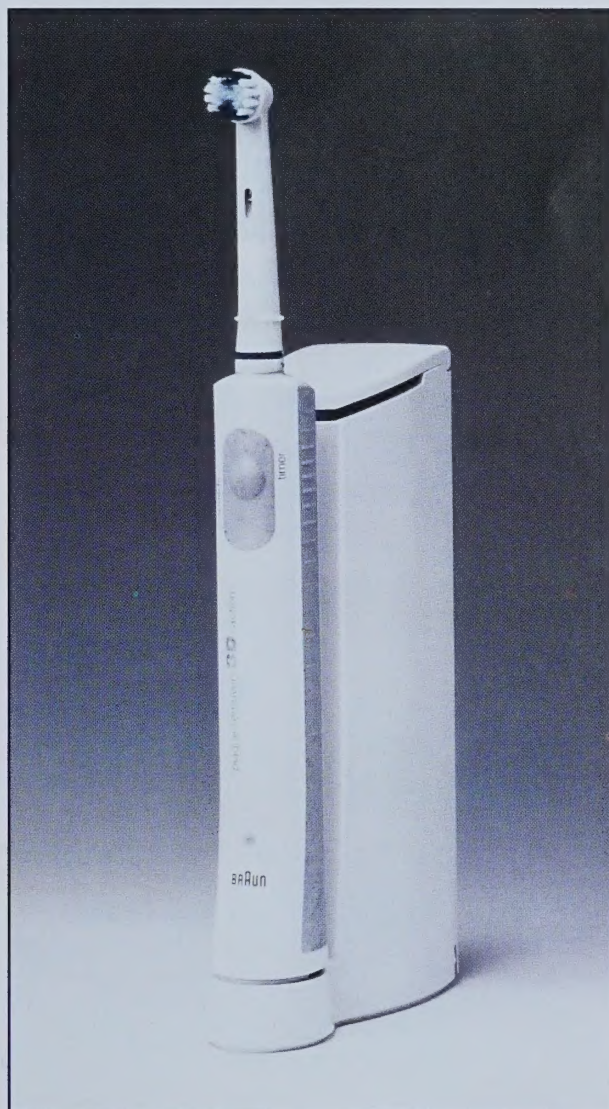
Le mouvement d'avant en arrière de l'éliminateur de plaque déloge doucement la plaque. Ce mouvement d'avant en arrière s'ajoute au mouvement normal oscillant des autres brosses à dents électriques Braun Oral-B pour que la plaque délogée soit enlevée doucement.

Les brosses de l'éliminateur de plaque 3D sont également nouvelles avec un centre de poils bleus Flexisoft. Au cours d'un brossage normal, ces poils cèdent pour mieux envelopper et nettoyer chaque dent. Les poils plus doux du centre étendent également la portée des soies témoins vertes de la périphérie de la brosse pour nettoyer plus efficacement entre les dents.

La tête a un angle de trois degrés tout comme les instruments professionnels dentaires pour faciliter l'accès aux dents arrières et autres endroits difficiles d'accès. Le mouvement 3D et les brosses redessinées nettoient mieux les dents, au-dessus et au-dessous de la gencive. De plus, un détecteur de pression a été ajouté qui arrête le mouvement d'avant en arrière quand on applique trop de pression afin d'éviter les risques d'abrasion des dents et des gencives.

D'autres caractéristiques intéressantes sont : un numéro de service sans frais imprimé directement sur le manche de l'appareil, une poignée qui ne glisse pas et qui ne tourne pas dans la main, une commande à deux vitesses sur le modèle de luxe et une minuterie plus intelligente qui garde le compte des deux minutes de brossage même quand l'appareil est arrêté brièvement.

L'éliminateur de plaque 3D Braun Oral-B est offert depuis le mois de septembre 1998 dans les magasins à rayons et les pharmacies à travers le Canada.



The 3D Plaque Remover from Braun Oral-B.

L'éliminateur de plaque 3D de Braun Oral-B.

231



Treat Bruxism and TMJ Without Impressions, Models or Lab Time

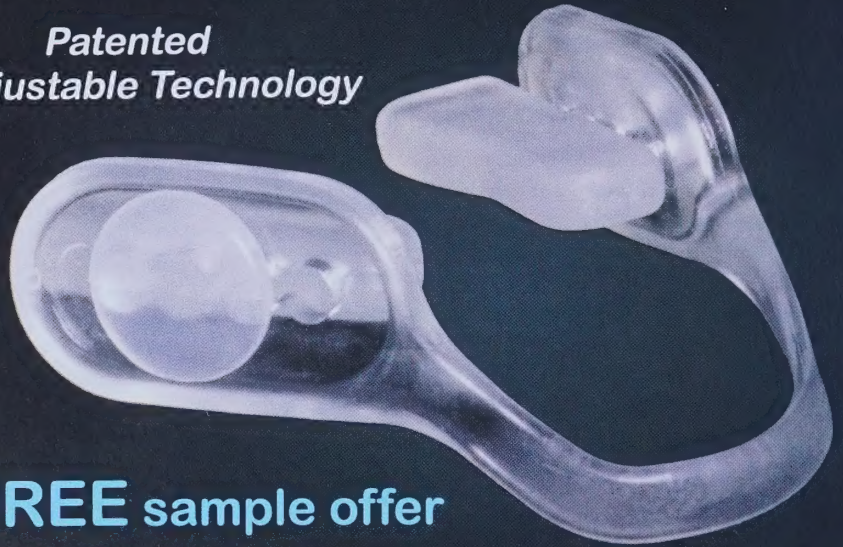
Effectively used by
1,000's of dentists

Patented
Adjustable Technology

Instantly protects
dental work

Reduces overhead
Interrupts clenching
Deprograms muscles
Unloads TMJ

Equilibratory and
Durable Kraton® bitepads
Treats a locked jaw
Insurance coded



FREE sample offer

Order Now 1-800-831-7245 Tech: (816)792-0TMJ

Ask for day/ortho or night designs (wide bitepads available). 30 day money back guarantee.

Kraton is a registered trademark of the Shell Oil Corp.

Season's Greetings

FROM THE
CANADIAN DENTAL HYGIENISTS ASSOCIATION



Joyeuses Fêtes

DE L'ASSOCIATION CANADIENNE DES
HYGIÉNISTES DENTAIRES

THE CANADIAN DENTAL
HYGIENISTS ASSOCIATIONL'ASSOCIATION CANADIENNE
DES HYGIÉNISTES DENTAIRES

La planification financière...

pour votre famille et pour votre avenir

L'autonomie financière ne survient pas par accident. Elle exige un effort continu de planification, d'épargne et d'investissement. Afin de vous aider à préparer votre avenir, l'Association canadienne des hygiénistes dentaires, en collaboration avec Merrill Lynch Canada Inc., a élaboré un régime collectif de retraite et d'épargne. Ce régime est destiné à permettre aux membres de l'ACHD et à leur famille de mieux planifier leur

situation financière et de leur procurer certains avantages tels que des tarifs réduits, des services de planification et des séances d'information.

L'ACHD et Merrill Lynch s'engagent à vous aider à atteindre le bien-être financier que vous désirez. Pour plus de renseignements ou pour parler avec un conseiller financier, communiquez avec les Services de placement de l'ACHD au

1-800-443-6433 ou visitez

www.vcomsolutions.com/cdha

**Merrill Lynch**

Merrill Lynch Canada Inc. est
membre du CIPF.

**RAHDC — LE RÉGIME D'ASSURANCE CONÇU POUR LES HYGIÉNISTES
DENTAIRES CANADIENS**

Digby County, Nova Scotia

WANTED

A full-time certified dental hygienist for a medium size family oriented practice in Digby County, Nova Scotia. Three operatory dental practice.

Salary starts at \$21/hr beginning January 1999 or sooner. Please fax resume to (902) 837-7312.

EXAMEN AUTO-ÉVALUATION (suite de la page 223)

Clé de réponses et justifications

(la bonne réponse est indiquée entre parenthèses)

- 21.(2) L'auto-inoculation est possible par l'exploration instrumentale.
Les précautions universelles permettent de prévenir l'infection croisée.
- 22.(2) Il ne faut pas user de force, de contrainte ou de manipulation pour obtenir le consentement du client. Il faut donner de l'information véridique. L'hygiéniste dentaire fait la promotion active de l'amélioration du bilan de santé buccale du client. Grégoire est trop jeune pour que la question de l'autonomie ne soit mise en cause.
- 23.(1) La vulnérabilité globale aux caries est une indication de l'utilisation. Il faut procéder immédiatement au scellement des dents qui viennent d'apparaître dans ces cas.
- 24.(1) Cette démarche reconnaît la diversité culturelle et socio-économique et les valeurs associées à la santé et à la maladie à l'intérieur d'une culture et sous-culture définie (en cas de manque de ressources, modifier le programme ou fournir les ressources).
- 25.(1) Les questionnaires destinés aux clients sont un moyen peu coûteux d'évaluer la qualité et devraient être pris en compte lorsqu'on fait la conception d'un programme d'assurance de la qualité.
- 26.(1) Le rinçage de l'acide phosphorique est important parce que l'acide résiduel nuit à l'adhérence de l'agent de scellement. Le séchage est critique parce que l'humidité nuit à la rétention de l'agent de scellement dans la fissure.
- 27.(1) L'irrigation nécessite la prémédication chez les clients sujets à la bactériémie.
- 28.(2) Les effets secondaires des agents de blanchiment peuvent inclure l'hypersensibilité dentaire.
- 29.(2) Couper le long de la ligne permet de veiller à ce que le protecteur buccal n'empiète pas sur les attaches musculaires dans la cavité buccale.
- 30.(2) La prévalence du cancer buccal est deux fois et demie plus élevée chez les hommes et il y a deux fois plus de décès chez les hommes que chez les femmes; il touche les hommes plus âgés et les grands consommateurs d'alcool et de tabac.

Classified Ad Rates

Fifty (50) words or less, \$26.75 (GST included).
Additional words: \$0.54 per word (GST included).

Closing date for the receipt of copy is approximately one month prior to publication date:

DEADLINE	ISSUE	CIRCULATION DATE
December 10	January/February	January 15
February 10	March/April	March 15
April 10	May/June	May 15
June 10	July/August	July 15
August 10	September/October	September 15
October 10	November/December	November 15

Advertisers' Index

BLOCK DRUG	204
BRAUN	216
BUTLER	IFC
CDHA	202 & 233
COLGATE	OBC
JOHNSON & JOHNSON	200
MERRILL LYNCH	228
ORAL B	217
PERIO REPORTS	234
SPLINTEK	232
SULCABRUSH	IBC

Perio REPORTS

Bimonthly publication designed for dentists and dental hygienists concerned about their patient's periodontal health. Each issue summarizes periodontal research of specific interest to clinicians. Easy to read format keeps you up to date on the latest research findings.

Journals reviewed for **Perio REPORTS** include:

Journal of Periodontology
Journal of Clinical Periodontology
Journal of Periodontal Research
Journal of Dental Research
Periodontal Abstracts
Quintessence International
JADA, JADHA

☐ Please send sample issue for my review

☐ \$48 one-year ☐ \$84 two-year

Name _____

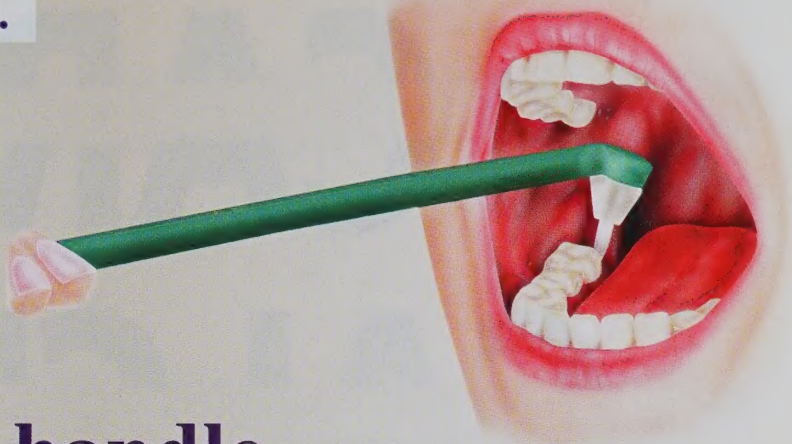
Address _____

City _____ Prov. _____ Postal Code _____

Mail to:

PerioREPORTS, P.O. Box 52090
311 - 16th Ave. NE, Calgary, Alberta T2E 8K9

Sulcabrush® Inc.



Get a handle on healthy Gums !

- The **Sulcabrush®** was proven better than dental floss in some parts and **equal to dental floss** in other parts of the teeth and gums, for the removal of plaque and the reduction of gingivitis. (Study reprints available).
- Please call to receive our **NEW** patient pamphlets to help your patients identify and purchase the **Sulcabrush®** at their local Drug Store that carries our product.



110%
Money back
Guarantee !

After purchasing a minimum order of 36 Sulcabrushes, if you are not completely satisfied with patient results and/or compliance after dispensing 1 box (18 Sulcabrushes) to your patients – please return the second box of 18 Sulcabrushes and we will refund you 110% of the invoice price in appreciation for trying the **Sulcabrush®**.

**RECOMMENDED FOR PATIENTS
WHO HAVE DIFFICULTY FLOSSING !**

Toll free:

1-800-387-8777

www.sulcabrush.com/hygienists

Available at:

**SHOPPERS
DRUG MART**

**LONDON
DRUGS**

PharmaPlus
DRUGMART®

and many fine Drug Stores

No dentifrice offers more protection

CARIES
CARRIES
CALCULUS
CALCULUS
PLAQUE
PLAQUE
GINGIVITIS
GINGIVITIS

Colgate Total
A Technological Advance in Preventive Dentistry.

Colgate Total is the first and only dentifrice to go beyond caries protection to provide long-lasting protection against plaque, calculus and gingivitis¹. Because of the unique combination of 0.3% Tricosan and the polymer Gantrez, only Colgate Total dentifrice continues to provide a sustained antimicrobial effect for up to 12 hours after brushing². In fact, the benefits of Colgate Total dentifrice in reducing microbial plaque and gingivitis have been established in over 16 independent clinical studies worldwide. The long term studies show an average 45% reduction in plaque, 57% reduction in gingivitis (plaque and gingivitis severity index) and 25% reduction in calculus. That's why Colgate Total is the first and only dentifrice to earn the Canadian Dental Association's seal of approval for gingivitis reduction and in helping to prevent tooth decay.



So if your patient requires the additional protection, recommend clinically proven Colgate Total.
To order Colgate Total, call Colgate Oral Pharmaceuticals at 1-800-225-3756

1, 2 data on file *TM Reg'd Colgate-Palmolive Canada Inc.

2498

SERIAL
RK
60
.5
C352
v.32